AUGUST 15, 1951

MODERN MEDICINE

The Journal of Diagnosis and Treatment



Dr. Robert James Crossen (see page 11)

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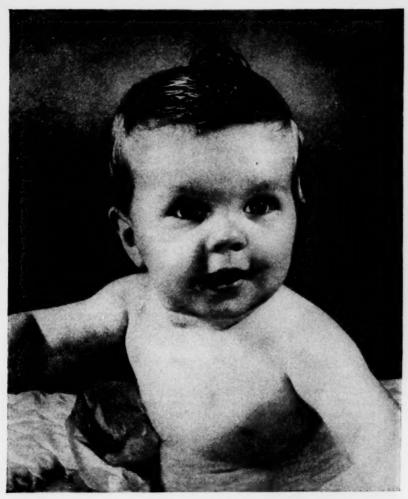
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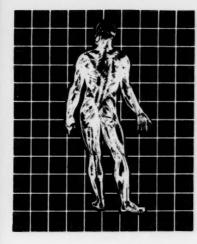
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Whitaker, J. C., et al.: Antibiotics and Chemotherupy 1:208 (June) 1951.

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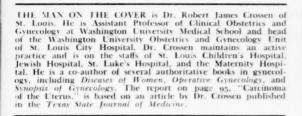
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LETTER FROM THE EDITOR

Dear Reader:

The day of the five-cent cigar may be gone forever, but the nickel is still with us. It isn't good for much. It no longer buys a bus ride or pays for a phone call. Except for making change, about its only use is to decide who will pay for the coffee.



When you flip a nickel, the chances are 50-50 that tails will come up. And there, for the observant to read, is that venerable motto, *E. pluribus unum*. It is stamped on every U.S. coin. It could well be the motto for *Modern Medicine*, too, for each issue of your journal is, indeed, one composed of many.

Literally hundreds of medical journals, hospital bulletins, clinical reports, and new

books, American and foreign, are perused by the physicians on our editorial and consultant boards each month for selection of the developments most significant to the doctor in active practice. Some data need only brief mention, others require detailed specificity. The criterion is usefulness to you.

The task, of course, is tremendous, but it is also vital. Lives may be saved and much distress may be alleviated, if the right information is placed promptly in the hands of the men who can make the best use of it—the doctors in active practice.

For unlike the nickel, scientific knowledge, the currency of medicine, has not been devalued by the inflationary spiral. On the contrary, such strides have been made in therapeutics that up-to-date information on the newest developments in diagnosis and treatment is more desirable and more valuable than ever.

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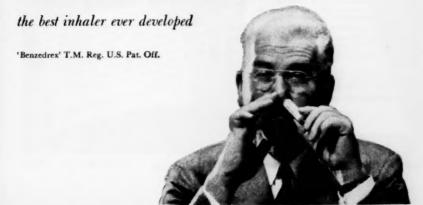
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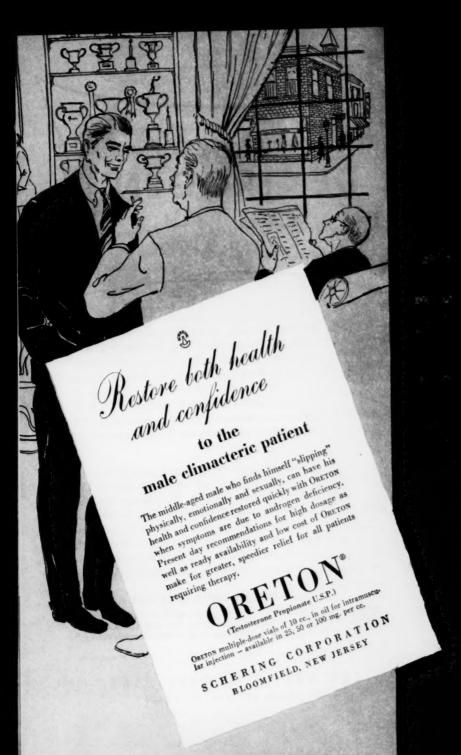
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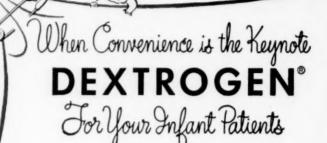


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devised a method for diminishing the size of the lobes of the hypertrophied prostate. It was not presented as a substitute for resection or prostatectomy but as a palliative measure to be used in those cases in which the patient dreaded an operation or his physical condition precluded the possibility of survival from a major procedure. The technic is also applicable following resection when a small nodule has been overlooked or incompletely removed.

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GEORGE R. LIVERMORE, M.D. Memphis

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TO THE EDITORS: Surgeons are frequently confronted with the aggravation of a needle turning while doing surgery. During the past year Alton Ochsner, M.D., chief surgeon, Tulane University, and L. R. Snowden, surgical instrument consultant, have developed and perfected a definitely improved instrument for holding surgical needles. This holder has been named the Ochsner Diamond Jaw needle holder in honor of the professional assistance and contributions made by Dr. Ochsner.

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WILLIAM H. MORETZ, M.D. Salt Lake City

Shotgun for a Sparrow

TO THE EDITORS: In the correspondence section of the June 15, 1951 issue of Modern Medicine (p. 18), it appears to me that Dr. R. H. Kazmierski is using a shotgun to kill a sparrow. A much simpler procedure for removing sutures would be to use a few well-placed subcutaneous sutures of No. 00 plain catgut, placed vertically, and then to close the line of incision in the skin with a continuous subcuticular suture of 34-gauge stainless steel wire.

This technic has the advantages of taking less time at the operating table and of being much easier on the patient during removal of sutures, because the suture emerges from the skin through one point only instead of the number of separate points necessitated whenever interrupted vertical mattress sutures are employed.

It has the further advantage that in children who are less cooperative in the removal of sutures it can be removed practically without their knowledge, simply by elevating the bandage at one extremity of the incision, then cutting the wire at the skin surface, and securing the other end at the opposite extremity with a hemostat. With pressure on

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the undisturbed bandage, the suture can be removed quickly without struggling on the part of the patient and almost without his knowledge. Also, this method leaves only the incision line instead of the lateral stitch marks produced by interrupted vertical mattress sutures.

DAVID C. JAMES, M.D.

Phoenix

To Keep up with the Times

TO THE EDITORS: Modern Medicine is the magazine that I, as a psychiatrist, depend on to keep up with the times in the general field of medicine.

SAMUEL W. HARTWELL, M.D. Lansing, Mich.

Dislikes EMIC Proposal

TO THE EDITORS: Although I fortunately happened to be in the Navy while Emergency Maternal and Infant Care program was in full swing, I am deeply interested in reading the possible proposals to come up with another obstetric monstrosity should mobilization continue, now apparently under consideration (Modern Medicine, June 1, 1951, p. 39).

The original EMIC was bad enough, although basically the program was good for those in the military service with incomes too small to pay medical or hospital costs.

The busy physicians, already overloaded with work, who consented to do obstetrics under the EMIC rules soon found that the paper work was quite time-consuming. Even a slight typing error meant doing all the papers over again.

If a confinement case moved be-

(Continued on page 32)

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*M. THOMAS GORSUCH, M.S., M.D. Clinical and Laboratory Investigation of Sodium Gentisate as an Antirheumatic Treatment. Medical Woman's Journal, Sept. 1950.

Write for Copy of Clinical and Laboratory Investigation just published.



fore delivery, little if any part of the \$50 was allowed for prenatal care already administered. Spontaneous abortion, at times a very trying complication in obstetrics, went by the board, for all practical purposes, as a gratis entity. Operative procedures were allotted a fee hardly better than those charged at the bitterest point of the depression of the thirties.

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³ Hardt and Steigmann: American Journal Digestive Diseases; June, 1950.

² From the film The Role of Gastroscopy the Diagnosis and Treatment of Gast Pathology by Dr. Leo L. Hardt, Clini Professor of Medicine, Loyola Universi Medical School, Chicago.

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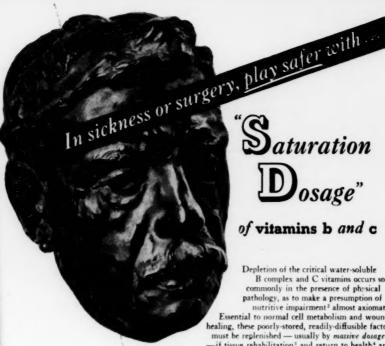
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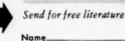
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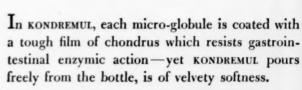


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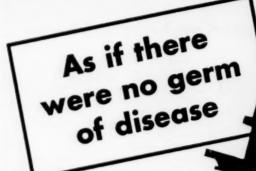
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Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, 84 South Tenth Street, Minneapolis 3, Minnesota.

QUESTION: A 38-year-old woman, weighing 161 lb., has pain in the right leg anterolaterally on walking. The pain, which is relieved by rest, started about one year ago, becoming worse six months ago. The woman smokes moderately. Physical examination reveals marked right lateroflexion of the uterus. Blood count and basal metabolic rate are normal; Wassermann and urinalysis, negative. What other tests are indicated? Roentgenograms of leg and abdomen show no calcification of blood vessels. What is the differential diagnosis of unilateral intermittent claudication? Could the uterus be impinging on the right femoral or iliac arteries?

M.D., Massachusetts

ANSWER: By Consultant in Surgery. Intermittent claudication ordinarily is a symptom of occlusive peripheral arterial disease and usually appears as a unilateral manifestation which may later become bilateral. In a patient less than 40 years of age, the symptom is probably indicative of thromboangiitis obliterans, commonly known as Buerger's disease, which is rare in women but does occur. The absence of calcification of the vessels supports, but does not necessarily confirm a diagnosis of Buerger's disease in this case. The possibility that the position of the uterus has any effect upon the arterial circulation of the extremity seems unlikely, although a neoplasm displacing the uterus could be obstructing the iliac artery.

Palpation of the arteries of the extremities is important in examination. Since the disease is apparently asymmetric in this case, comparison of the findings in the two lower extremities may be helpful. The pulsations in the peripheral arteries are absent or diminished in 95% of patients with Buerger's disease. Oscillometric studies may aid in determining the degree of vascular interference.

The color of the affected extremity may be normal, but the extremity or some of its digits may blanch abnormally after elevation. Return of color after dependency may be delayed. Abnormal redness or cyanosis of some of the digits after dependency may be noted.

Skin temperature measurements or simple palpation of the extremities may reveal abnormal coldness. Occasionally arteriography may be required to establish diagnosis.

QUESTION: What is the treatment of choice for paresis or neurosyphilis?

M.D., Louisiana

ANSWER: By Consultant in Syphilology. In a few cases, fever treatment is still employed, but today chief de-

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pendence is placed on moderately large doses of procaine penicillin with aluminum monostearate. A suggested total dosage is 12,000,000 units given intramuscularly two or three times weekly for four weeks. Before treatment, the patient should have a thorough physical examination including complete neurologic study, spinal fluid cell count, quantitative determination of protein, colloidal gold curve or the equivalent, and serologic test. Each of these procedures should be repeated six months after the treatment has been completed.

QUESTION: Can a preparation containing 2.5 gr. of potassium iodide three times daily be used over a prolonged period in treatment of arteriosclerotic vascular disease without danger of flaring up an unsuspected tuberculous focus?

M.D., Washington

ANSWER: By Consultant in Chest Treating arteriosclerotic Diseases. vascular disease with 2.5 gr. of potassium iodide three times daily probably would not flare up an unsuspected tuberculosis. Iodides have not been proved deleterious to tuberculous lesions. Years ago, when pulmonary lesions were detected but tubercle bacilli were not found in the sputum, iodides were frequently administered in large doses, resulting in more profuse expectoration and the recovery of tubercle bacilli in some cases. The conclusion was that the iodides had broken down the lesions, thus liberating the tubercle bacilli. Apparently iodides only liquefy and increase secretions in the bronchial ramifications, thereby facilitating expectoration but producing no change in the lesion.

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A REVERSIBLE DISEASE: "The work of numerous investigators," as Morrison¹ points out, "has shown that arteriosclerosis whose clinical aspects are better known as atherosclerosis, is a reversible disease in the experimental animal and that it shows equally promising therapeutic results in humans."

There is now considerable evidence that atherosclerosis is based on (1) a high-cholesterol, high-fat diet, (2) disturbances in lipid and lipo-protein metabolism in the liver, and (3) endocrine imbalance, especially of the thyroid and sex hormones.

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Morrison, L. M., J.A.M.A. 145:1232, 1951. 2. Slaughter, D.: South Dakota J. Med. & Pharm., 1:425, 1948.
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I, Filler, W.: J. A. M. A., 143: 1235 (Aug. 5,) 1950

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Book Chapter

Treatment of Cancer of the Lips

GRANT E. WARD, M.D.,* AND JAMES W. HENDRICK, M.D.†

From the book, Tumors of the Head and Neckt

The location and characteristic appearance of lip carcinoma should afford early diagnosis of this most prevalent cancer of the upper respiratory and alimentary tracts. If prompt and efficient therapy is instituted, many lips can be cured without much disfigurement. Unfortunately, because of procrastination or ignorance, the patient often does not consult a physician in time, with the result that lip cancer still carries a substantial mortality.

In discussing the therapy of lip cancer, treatment of the primary lesion and of cervical metastases must be considered separately. Also, any previous therapy should be evaluated as to its effect in making the tumor resistant to further radiation or in altering the histologic picture.

Early and very small lesions of the lips can be eradicated by either surgery or irradiation. Each of these modalities has its own advantage and should be used according to the particular case.

Treatment by Surgery

Cancers under 1.5 to 2 cm. in diameter that do not infiltrate deeper than 1 or 1.5 cm. on the lower lip, upper lip, or in the

^{*} Associate Professor of Surgery, Johns Hopkins University and the University of Maryland, Baltimore.

Associate in Surgery, University of Maryland, Baltimore,

From the book, Diagnosis and Treatment of Tumors of the Head and Neck,
(Not including the Central Nervous System), 832 pages. Published by the Williams

& Wilkins Company, Baltimore, 1950. \$15.





Figure 1

commissures are eradicated by V-shaped excision (Fig. 1). The incision should extend well beyond the growth for at least 1 cm. on each side. This procedure can be carried out in a minor operating room under

infiltration anesthesia with very commendable results.

In suturing the lip after excision of the tumor, the mucocutaneous junction on each side must be accurately approximated to give a satisfactory cosmetic and functional result. A good margin of tissue must be left on each side of the growth. If the lesion is of low histologic grade with no enlarged nodes in the drainage area, routine neck dissection is not done.

Lesions of the lower lip that involve the central third or central half and do not infiltrate the entire depth of the lip lend themselves to a wide V-excision of a triangular area. After removal of such a wide section, closure is difficult without some form of flap shifting, and even then the lower lip is apt to be short. To overcome these undesirable possibilities, the following procedure is used:

A small triangular piece of skin and mucous membrane, taking in the full thickness of each side of the upper lip, is removed and discarded. The base of the triangle extends laterally from each commissure for a distance equal to half the amount of the tissue removed from the lower lip. The



Figure 2



mucous membrane along this line is cut a little higher than the skin so that it may be brought out and sutured to the skin edge, thus reconstructing the lateral quarter of the vermilion border of the new lower lip. The mucous membrane of the lower gingivolabial sulcus is incised far enough posteriorly on each side to allow shifting of the remnants of the lower lip medially. This incision should be made about 1/8 in. from the gingiva, leaving sufficient mucous membrane for suture (Fig. 2a).

The right side of the wound is closed; the mucous membrane is approximated by interrupted sutures of 00 chromic catgut on an atraumatic needle. Similar sutures are used in the muscle, and the skin is closed with black silk interrupted sutures. The mucous membrane of the gingivolabial sulcus is then approximated with interrupted sutures of 00 chromic catgut. The left side of the upper lip is closed and the lower

lip is closed in layers (Fig. 2b).

Neoplasms of the lower lip involving the central third or half and extending deep into the lip, perhaps as far as the jaw, require a still more extensive procedure. Often there is a surrounding zone of induration simulating an inflammatory reaction which, when palpated between the fingers, is found to be tender, thickened, and firmer than normal. Malignant cells are present in this peripheral zone, demanding excision of this zone with the tumor, allowing a wide margin.

Frequently the patient has had radiation over a long period of time. To give an adequate margin all down the lip, a square or rectangular area of tissue is removed. Here again,

the lower lip will be markedly shortened.

Small triangles of the upper lip are excised and discarded. The mucous membrane at the base of the triangles is brought out and sutured to the skin for a new vermilion border. The mucous membrane in the gingivolabial sulcus on each side is incised laterally sufficiently to allow the edges of the lower

lip to be brought together. The straight lower border of the defect is converted into a "W" by the excision of a small triangle on each side (Fig. 3). When these two extra incisions in the chin are closed, the former rectangle becomes triangular and can be approximated in a straight line (Fig. 2b).

Cancer involving the lateral third of the lower lip and extending deeply into the lip requires a somewhat different



Figure 3

technic. Such lesions need wide rectangular excision. The base of the defect is converted into a "W" and closed, as in the above procedure. The triangular defect is filled with an Estlander's flap turned down from the upper lip and cheek.

A triangle is then cut, the incision running from near the ala of the nose stops to within 1 cm. of the vermilion border of the lip, leaving a narrow pedicle for the orbicularis oris



Figure 4

artery to supply circulation to the entire triangular flap (Fig. 4a). The triangle includes skin, muscle, and mucous membrane. It is then rotated through 180 degrees and fitted into the defect in the lower lip (Fig. 4b). All incisions are closed in layers; the mucous membrane

of the flap's raw edges is sutured to the skin, creating a new vermilion border in the center of the lower lip.

The authors' modification of the Estlander triangle for rectangular defects is illustrated in Figure 5.

Cancers that have been insufficiently treated by irradiation, electrosurgery, or surgery and involving the entire lower lip down to the mandible, are removed with electrosurgery, with no thought of immediate closure. The wound is left to granu-

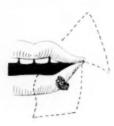






Figure 5

late and cicatrize the mucosa to the skin. After six months to a year, to insure against recurrence, the lip is reconstructed by a tube or pedicle flap from the chest wall or the neck.

Lesions of the commissures, when permitted to grow, may involve the upper and lower lip and extend out along mucosa and skin into the cheek. They are difficult to manage and are best treated by a combination of modalities. A thorough course of high-voltage roentgen therapy is administered. A total dosage of 6,000 r, measured in air, is reached. This is not intended to eradicate all the disease; electrosurgical removal is carried out in six to eight weeks after completion of the irradiation.

The irradiation shrinks and devitalizes the cancer and surrounds it with dense scar tissue, making electrosurgical removal easier and safer. The tongue and jaws, if possible, should be protected by lead or lead rubber filters inserted in the mouth during application of the x-rays. The wound is permitted to granulate and cicatrize the mucous membrane to the skin, always a slow process because of constant bathing by saliva, food, and ever-present infection.

When areas of induration persist or radioosteitis occurs, electrosurgical removal is needed. The wound is allowed to cicatrize. Such defects are closed by a pedicle graft from the chest, occasionally from the neck; the latter can seldom be used because metastasis frequently develops on the involved side, necessitating suprahyoid or radical neck dissection.

Carcinoma on the lateral third that has been permitted to persist and involve the entire depth of the lip, or with a history of rapid development, and that is of a histologic grade 2, 3, or 4 may involve the mandible on the same side by direct extension of the lesion to the periosteum and outer table of the bone. On the other hand, the mandible may be affected by the lymphatic route through the mental foramen. It has been shown that in 22% of normal individuals, the lymphatics from the lateral third of the lip enter the mental foramen, an anatomic pathway by which the malignant process may extend to the mandible.

Evidence of mandibular involvement by the lymphatic route is "toothache" or pain in the jaw and anesthesia of the lip on the same side. When the mandible is bidigitally palpated with one finger in the mouth and the other over the mandible, pressure will produce pain if metastasis is in the bone. It is our policy to excise the local lesion and the involved area of bone en bloc, together with the areas bearing lymph nodes on the same side of the neck.

The upper lip is less frequently involved by malignant disease than the lower lip, but produces problems of reconstruction somewhat more complicated than those of the lower lip. Small lesions may be excised with the same facility and

cosmetic results by the V-shaped excision, as demonstrated in Figure 1.

If the deformity will be large following excision of a tumor and closure, producing considerable contraction of the upper lip, the method of Abbe is utilized with a pedicle flap



Figure 6

turned up from the lower lip (Fig. 6). A few interrupted sutures of fine chromic catgut are used in the muscle and the mucous membrane and the skin is approximated with interrupted fine black silk.

The patient is fed through a drinking tube for twelve or fourteen days. Then the pedicle is cut and any further cosmetic reconstruction accomplished. This method is particularly applicable to neoplasms of the upper lip 1.5 to 2 cm. in diameter and if the lower lip is somewhat redundant.

Malignant growths involving the vermilion border of the upper lip or skin of the upper lip infiltrating a large area will, when removed, cause disfigurement; the lip may be reconstructed by the method of Denonvilliers or Davis-Ivy. Both achieve good cosmetic results.

The Denonvilliers' technic consists of constructing two vertical flaps through the full thickness of the cheek with a pedicle below, after the growth has been removed. The lateral incisions begin from the lower border of the mandible and extend slightly above the ala of the nose, and the internal border of the flap is the margin of the defect in the upper lip. A diagonal incision is made from the upper angle of the



Figure 7

defect to the lateral incision forming an obtuse angle which permits the flaps to oppose each other more accurately (Fig. 7a). The flaps are sutured in the midline beneath the nose; the mucous membrane lining the flaps is arranged to form the

vermilion border (Fig. 7b). Since the flaps contain the whole thickness of the cheek, the lip at first appears thicker, but after a period of months thins to give a good cosmetic effect.

In the Davis-Ivy method, after complete removal of the tumor, the wound is temporarily closed by approximating the mucous membrane to the skin on each side. After a period of ten days, the mucous membrane lining the vertical limb on one side of the wound is taken down.

Two flaps are made, one by two horizontal incisions, the lower extending from the commissure laterally, and the other from the ala, laterally, into the cheek, for a distance of one-half the deformity in the lip. The incisions extend through the skin and subcutaneous tissue down to the muscle. The lateral border of this flap is incised, connecting the horizontal incisions, and the skin and subcutaneous tissue are dissected from the muscle and mucous membrane, beginning laterally and extending medially, to form the interlining covering the defect. A second flap is made in the cheek, extending down over the angle of the mandible onto the neck, by two vertical incisions of a sufficient width to cover the defect (Fig. 8a, dotted line).

The horizontal flap is placed over the defect and sutured, forming the skin covering of the new lip. The vertical flap is raised from the cheek to be placed over the first flap, form-

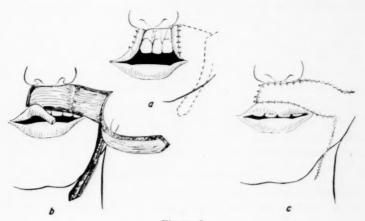
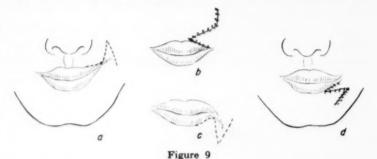


Figure 8

ing the skin covering of the new lip (Fig. 8b). The vertical flap is sutured in place with fine silk or horsehair sutures. The previously prepared mucous membrane forms the vermilion border of the reconstructed lip. The vertical incisions over the cheek and neck are closed with interrupted horsehair or fine black silk mattress sutures (Fig. 8c).

This procedure is satisfactory but time must occasionally be allowed between the transference of the flaps. It gives a more rigid upper lip than the method of Denonvilliers.

Scars resulting from radiation therapy of small tumors at the commissures, involving either the upper or lower lip, that may cause upward or downward distortion are corrected by Szymonowski's methods. If the corner of the mouth is drawn upward, the defect is corrected by making a triangular flap with the base downward and the apex extending up toward the ala of the nose; the flap is turned down into an incision just above the vermilion border of the upper lip and sutured with interrupted black silk, lowering the angle of the mouth (Fig. 9a and b). If the angle of the lip is depressed, a triangular flap is made which includes the area depressed at



the angle of the mouth. The flap is transferred into a horizontal incision at the lower edge of the vermilion border of the lower lip and sutured with interrupted sutures of black silk (Fig. 9c and d).

Treatment by Irradiation

Cancers under 1.5 cm. in diameter and not beyond 4 mm. in depth and of low histologic grade, or larger growths in an

(Continued on page 134)

Radiation Therapy of Leukemia

EDWIN E. OSGOOD, M.D.* University of Oregon, Portland

TITRATED, regularly spaced, total body irradiation by Pas or roentgen rays appears to be of value in the treatment of patients with chronic leukemia.

In assessing the merits of the radiation process, Edwin E. Osgood, M.D., remarks that Paz has advantages over the roentgen method, provided adequate facilities and staff are available.

The therapeutic problem is to find a uniform dose and interval that will:

- Enable the patient to carry usual activities at usual body weight
- · Contain the leukocyte count within range of 10,000 to 20,000 per cu. mm.
- Sustain hemoglobin, ervthrocytes, and platelets at normal levels
- · Prevent abnormal bleeding, skin lesions, and bone pain
- · Keep liver, spleen, and lymph nodes at approximately normal size.

Before treatment is started, the disease should be carefully explained to the patient, including the importance of a high-protein, highcalorie, cellulose-free diet, taken as six small feedings daily. Within a month or two, a normal diet may be gradually resumed.

Psychotherapy, blood transfusions, and antibiotics are employed as indicated. The patient is warned against dental extractions, elective surgical procedures, and pregnancy.

For irradiation, 200 to 400 kv are used with no cone, 0.5 mm. Cu plus 1 mm. A1 or more filtration with a half-value layer of over 1 mm. Cu. The target skin distance is 80 to 100 cm.

Therapy is given from the top of the head to the tip of the toes, through 1 port in children, and 2, separated at the umbilicus, in adults. Each port is treated identically each time, though prone and supine positions are alternated at every treatment.

For P⁸⁰ therapy, a sterile, accurately standardized solution, prepared from the Atomic Energy Commission item S-3, is given intravenously under the supervision of a trained staff with the necessary facilities.

The second treatment should not be given earlier than one week after the first. No dose should exceed double the preceding dose. The interval should not be increased by more than one week at a time if less than four weeks, or by more than two weeks if over four weeks. The usual time for control is about six weeks with either form of treatment.

In evaluating dosage and interval, the direction of change in the spleen. * Titrated, regularly spaced radioactive phosphorus or spray roentgen therapy of leukemias. Arch. Int. Med. 87:529-548, 1951. liver, lymph nodes, bleeding tendency, leukocyte count, and hemoglobin or in the capacity for work and recreational activity is more important than is the actual level of each. Since P⁸² has a biologic half-life of eight days, dosage effects are cumulative if the interval is much less than six weeks. The erythrocyte P⁸² level will be about 6 times the plasma level at any time after twenty-four hours, and the leukocyte P⁸² content approximates 30 times the plasma value at any time after one week.

The length of the interval between doses varies inversely with the acuity of the leukemia; the more acute the disease, the shorter the interval. No patient given P⁵²² requires intervals of less than four weeks for maintenance. After the first two or three doses, the interval should be gradually prolonged by one to two weeks at a time. Patients previously treat-

ed with massive roentgen radiation usually require larger doses than do untreated persons.

At the time of the report, 32 of 58 patients with leukemia treated by body irradiation were alive. The mean duration of life from time of onset was 3.6 years for the total series; 4 years for granulocytic, and 3.4 years for lymphocytic leukemia. Over 80% of the total leukemia life of the patients treated by titrated radiotherapy has been spent in essentially normal living.

The advantages of P⁵²² therapy over spray radiation include definite, selective localization in the involved leukemic cells, control of the accuracy of dosage by the hematologist, the option of giving a larger dose in terms of rems to the involved cells without producing radiation sickness, and greater intervals between visits, although no more than twelve weeks should clapse without examination.

¶ AURICULAR FIBRILLATION of paroxysmal type frequently occurs when the heart is already damaged so that prompt therapy is essential. To facilitate choice of the proper therapeutic drug, rapidly acting intravenous digitalis preparations should be used first, since success or failure of these agents can be judged in a short time, in contrast to oral digoxin or quinidine whose effects may not become obvious for hours, explain Emanuel Hellman, M.D., M. Richard Altcheck, M.D., and Charles D. Enselberg, M.D., of Gouverneur Hospital, New York City. As soon as the fibrillation occurs, whether paroxysmal, recent, or chronic, ouabain, k-strophanthin, lanatoside C, or digoxin should be administered intravenously. If the ventricular rate is retarded within twenty to sixty minutes, depending on latent periods of the preparations used, digitalization is completed quickly. Any of several combined oral and intravenous methods may be employed. If the ventricular rate does not slow within the expected time, quinidine is started at once; when congestive failure is evident, digitalis is continued with quinidine.

The Rheumatic State

W. H. BRADLEY, D.M.*

England

THE mechanism of rheumatic fever apparently depends on two major factors: an inherited abnormal sensitivity to a specific antigen, and infection with Streptococcus pyogenes.

During acute upper respiratory infection, antibody globulin forms in excessive amounts. Circulating plasma volume is also much increased, and a large quantity of protein is washed into the tissues. Cells are infiltrated with hyaline material, and the typical lesions of rheumatic fever develop.

The specific inherited tendency to rheumatic fever may be a hormone defect that prevents change of surplus globulin to glycogen. Similar factors may be responsible for some types of rheumatoid arthritis as well.

The sequence of acute streptococcal sore throat, a lag of two or three weeks, then acute rheumatism has been reported since 1884 in English schools and in French schools from earlier years. Many strains of Str. pyogenes have been isolated during respiratory epidemics without joint involvement, and at least two types of group A organisms with rheumatism.

From onset of sore throat, the pattern of antibody response is constant and practically the same in rheumatic fever and scarlatinal arthritis. The serum albumin-globulin ratio is reduced or even reversed, and total protein is normal or high. The specific gravity of serum is elevated, yet serum is pale and deficient in bile pigments.

The hydremic syndrome is also shown by electrophoresis and the ultracentrifuge. Total circulating proteins rise before onset of rheumatism and run parallel with the course, decreasing as rheumatic activity subsides.

Circulating globulin may be more than doubled, albumin tends to fall, and fibrinogen is unstable, as in hyperimmunized animals. Even during scarlet fever without polyarthritis, pallor and high blood sedimentation rate may suddenly develop with increase in circulating plasma, as in rheumatic fever.

The fact that acute hepatitis and some other diseases of the liver parenchyma greatly reduce serum proteins may account for the remarkable antagonism between hepatitis and rheumatism. Experimental virus hepatitis can suddenly halt or reverse the rheumatic process, and in some cases rheumatic symptoms are relieved before jaundice appears, when liver function is at lowest ebb.

Cortisone closely resembles hepatitis in effect on rheumatoid arthritis. Here the important factor may be removal of protein by the S hormone through conversion to glycogen.

duced or even reversed, and total Some pathologists classify the rheu-

matic state with mesenchymal diseases and believe that collagenization, or diffusion of a hyaline ground substance, is necessary to formation of the characteristic granulomas. If collagen could be dispelled, rheumatism might be cured.

The predisposition to acute rheumatism is a mendelian factor with recessive transmission. In a typical genealogy, nearly half the descendants of one man may be affected, some with rheumatic fever or carditis, others with rheumatoid arthritis.

W. H. Bradley, D.M., believes that children of rheumatic parents should be kept under lifelong observation. A susceptible person should room alone, live in a small community, and work in fresh air.

Diet should be adequate. Ways to avoid respiratory infection should be taught and prophylactic drugs administered at suitable times.

Marriage with another rheumatic individual should be forbidden.

Insulin Resistance in Diabetic Coma

ANTHONY M. SINDONI, JR., M.D.*

LABORATORY reports must not be the sole guide in interpretation or therapy of a patient in diabetic coma. Observation of physical response is also essential.

Anthony M. Sindoni, Jr., M.D., of Philadelphia General and St. Joseph's hospitals, Philadelphia, describes diabetic coma of a 12-year-old girl who recovered after the administration of 7,220 units of insulin within fourteen hours.

During the first three and one-half hours, the unconscious and greatly dehydrated child with a blood sugar level of 430 mg. per 100 cc. was given 500 units of insulin, bicarbonate gastric lavage, and 1,000 cc. of 5% glucose intravenously. The general condition continued grave, and acctone odor increased. During the next seven hours, 6,200 units of insulin were given.

Despite the increased insulin dose and continuous administration of glucose, the acetone odor was still strong, so 520 more units of insulin were injected in three hours. Because of vomiting, gastric lavage was repeated, and hourly doses of 2 drams of bicarbonate solution were given for 8 doses by gastric tube.

Even though the patient had apparently recovered, acetone-like odor was still detected. Therefore, 550 more units of insulin were given during the next ten hours. After administration of 7,770 units of insulin within twenty-four hours, the blood sugar level was 220 mg. per 100 cc., carbon-dioxide combining power of the blood plasma was 54 volume per cent; the patient was symptom free.

* An unusual diabetic coma in a child with recovery, with special reference to insulin resistance and hypopotassemia. Am. J. Digest. Dis. 17:406-408, 1951.

Parasitic Infections of the Intestine

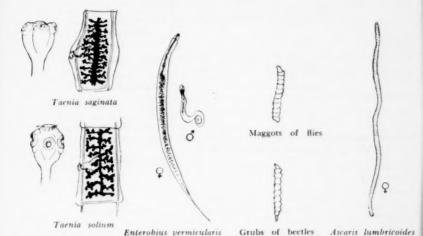
WILLIAM G. SAWITZ, M.D.*

Jefferson Medical College, Philadelphia

DIAGNOSIS of parasitic infections can be made only when the parasite in any stage of the life cycle is recovered and properly identified.

Symptoms are not specific. The examination of feces is satisfactory

Large tapeworms, especially fish tapeworms, infesting the small intestine are sometimes associated with a macrocytic, hyperchromic anemia. These worms probably deprive the patient of some essential hematopoietic factor.



for the recognition of most, but not all, of these infections.

Anemia, leukocytosis, or eosinophilia may be indications of parasitic infection, points out William G. Sawitz, M.D. A microcytic, hypochromic anemia is a prominent sign of those infections in which the parasite feeds on blood, as in schistosomiasis and hookworm disease. Worms with a phase of migration through the blood and lungs, Ascaris, hookworms, and Strongyloides, cause leukocytosis during the migratory phase. Worms with a prolonged blood phase, Trichinella spiralis, cause leukocytosis during the four to six weeks of the lives of the adult worms. Worms which live in the blood, the schistosomes or blood flukes, cause leukocytosis for the

* Parasitic infections of the intestine. GP 3:71-78, 1951.

length of their lives, up to ten or more years.

The Schistosoma or blood flukes cause the highest and most persistent cosinophilia. Worms with a bloodmigrating phase cause high but abnormalities which, at best, can only be suggestive of parasitic infestation. Sigmoidoscopic examination may show lesions of the sigmoid and rectum in patients with amebic dysentery, balantidial dysentery, and

PARASITIC DISEASES OF THE INTESTINE

Phylum	Parasite	Disease
PROTOZOA	Endamoeba histolytica Balantidium coli Giardia lamblia	Amebiasis Balantidiasis Giardiasis
HELMINTHS		
NEMATODA (ROUNDWORMS)	Enterobius vermicularis Trichocephalus trichiuris Ascaris lumbricoides Necator americanus Ancylostoma duodenale Strongyloides stercoralis Trichinella spiralis	Pinworm infection or oxyuriasis Whipworm infection or trichocephaliasis Ascariasis Hookworm disease Strongyloidiasis Trichinosis
PLATYHELMINTHES (FLATWORMS)	Hymenolepis nana Taenia saginata T. solium Diphyllobothrium latum Schistosoma japonicum S. mansoni S. haematobium	Dwarf tapeworm infection Beef tapeworm infection Pork tapeworm infection Fish tapeworm infection Schistosomiasis
A RTHROPODA	Maggots of bottle flies, flesh flies, houseflies, and latrine flies Grubs of beetles	Intestinal myiasis Intestinal canthariasis

temporary increase in eosinophils. Moderate eosinophilia occurs with worms which live in the small intestine such as Ascaris, hookworm, Strongyloides, Trichinella, and tapeworms. Eosinophilia is not common with worms that live in the colon.

DIAGNOSIS

Roentgenographic examination of the gastrointestinal tract may reveal schistosomal dysentery. A glass-tube should be introduced through the sigmoidoscope and material from the lesions aspirated by a suction bulb. Microscopic examination of the material may identify the parasite.

The examination of feces is satisfactory for the diagnosis of most parasitic infections but not if the feces contain oil, barium, iron, or bismuth.

Specimens to be examined for amebas should be kept warm and examined within half an hour after passage. A salt purgative may result in the passage of larger numbers of parasites.

Complete fixation tests may be used in the diagnosis of amebic hepatitis, amebic liver abscess, and trichinosis but are not too reliable for amebic colitis. The examination of duodenal aspirate is helpful in the diagnosis of giardiasis and strongyloidiasis. The examination of perianal swabs is the best method for the recovery of eggs of *Enterobius vermicularis*, the pinworm.

Worms which are large enough to be noticed by the patient when passed are usually the adult *E. vermicularis*, adult *Ascaris lumbricoides*, proglottids of *Taenia saginata* or *T. solium*, maggots of flies, or grubs of beetles. Artifacts, like fascia of beef or pork muscles, and roundworms that have contaminated feces after passage may be mistaken for true parasites.

TREATMENT

Drug therapy of parasitic intestinal infections may be summarized as follows:

Asymptomatic amebiasis and ambulatory amebic colitis: Terramycin or aureomycin, 2 gm. orally for ten days, followed by 0.25 gm. of carbarsone orally four times daily after meals and at bedtime for ten days, repeated after a ten-day interval if necessary. Children are given 0.06 gm. of carbarsone per kilogram of body weight daily for ten days. Diarrhea is corrected by 1 to 2 tbsp. of Kaomagma after each defecation.

Amebic dysentery: Emetine hydrochloride subcutaneously or intramuscularly in doses of 0.03 gm. twice daily for no more than ten days, and carbarsone as for asymptomatic amebiasis. Children over 8 receive 0.02 gm. of emetine daily. Younger children are not given emetine. Both blood pressure and electrocardiograms are examined repeatedly during therapy for myocardial effects.

Amebic hepatitis and amebic liver abscess: Chloroquine diphosphate (Aralen), 0.5 gm. orally twice daily for two days, followed by 0.5 gm. once daily for twenty days; or emetine hydrochloride as for amebic dysentery. Children receive 7 mg. of chloroquine diphosphate per kilogram of body weight daily for twenty days.

Amebiasis of other organs: Emetine hydrochloride as for amebic dysentery.

Balantidiasis: Carbarsone as for asymptomatic amebiasis.

Giardiasis: Quinacrine hydrochloride (Atabrine), 0.2 gm. orally three times daily after meals for two days, followed by 0.1 gm. three times daily for five days for adults and children over 8. Children of 1 to 4 are given 0.05 gm. twice daily for five days. The dosage is doubled for children 4 to 8.

Oxyuriasis: Cleansing enemas of tepid water on alternate evenings for six to eight weeks; or one-day treatment with 10 mg, of quinacrine hydrochloride per kilogram of body weight taken in the morning without eating, followed in three hours by 1 tbsp. of sodium sulfate in water. Children receive half the dose. If neither therapy avails, medicinal gen-

tian violet tablets are given in 4hour coating, 0.06 gm. three times daily for eight days, repeated for another eight days after one week's discontinuance. Children under 40 kilograms of body weight are given 0.03 gm. three times daily for eight days.

Whipworm: Ferric ammonium citrate, 1.5 gm. orally three times per day after meals for fourteen days. Children receive 1/3 to 2/3 the amount. Another therapy is avoidance of fat and alcohol for two days, then a salt purgative and cleansing enema the night before administration of 2.7 cc. of tetrachloroethylene and 0.3 cc. of oil of chenopodium on an empty stomach; treatment is repeated after one week if necessary. Children are given 0.2 cc. of the mixture per year of age.

Ascaris: For intestinal phase, 1 tbsp. of sodium sulfate in water at night, followed by 1 gm. of hexylresorcinol (Caprokol) on an empty stomach in the morning and sodium sulfate again in five hours. No food is allowed in the interval. Treatment may be repeated after a few days. Children receive ½ tbsp. of sodium sulfate and 0.8 gm. of hexylresorcinol if 6 to 10 years old; younger thildren are given 0.6 gm.

Hookworm: Medication with iron preparations until hemoglobin is at least 50%, avoidance of fat and alcohol for two days, 1 tbsp. of sodium sulfate in water at night, and 3 cc. of tetrachloroethylene on an empty stomach in the morning followed by sodium sulfate in two hours. Patient remains in bed without food until bowels move. Children are given ½ tbsp. sodium sulfate and 0.2 cc. of

tetrachloroethylene per year of age.

Strongyloidiasis: Medicinal gentian violet tablets in 1½-hour coating, 0.06 gm. three times on first day, 0.09 gm. three times on second day, then 0.12 gm. three times on third day, with daily dosage increases of 0.09 gm. until nausea. vomiting, or diarrhea occurs; drug is then omitted for one day and continued in highest nontoxic dose. Treatment is repeated after six weeks if necessary. Children receive 0.3 gm. three times on first day and dose is increased by 0.9 gm. a day. Infants are not treated with gentian violet.

Trichinosis: Treatment is symptomatic.

Dwarf tapeworm: 1 tbsp. sodium sulfate in water at night and o.q gm. of quinacrine hydrochloride orally on empty stomach in morning in three portions twenty minutes apart followed by sodium sulfate in ninety minutes, and o.1 gm. three times daily for three more days. Children are given 1/2 tbsp. sodium sulfate; those 4 to 8 receive an initial dose of 0.2 gm. of quinacrine hydrochloride followed by 0.1 gm. after breakfast for three days; those 8 to 10 receive an initial dose of 0.3 gm. followed by 0.1 gm. twice daily for three days, those 11 to 14 receive 0.4 gm. as initial dose followed by o.1 gm. three times daily for three days. If quinacrine is contraindicated, hexylresorcinol is given as for ascaris.

Taeniasis: Sodium sulfate and quinacrine hydrochloride are given as for dwarf tapeworm.

If unsuccessful, 1 tbsp. sodium sulfate is given at night and 6 cc. of aspidium oleoresin orally in the

morning on an empty stomach in three portions thirty minutes apart followed by sodium sulfate in two hours. Patient is kept in bed without food until bowels move. Children receive ½ tbsp. sodium sulfate and 0.5 cc. of aspidium for each year of age, not to exceed 5 cc.

If unsuccessful, sodium sulfate is given at night followed in the morning by 6 gm. of aspidium, 30 cc. of mucilage of acacia, and 30 cc. of a saturated solution of sodium sulfate orally in two doses thirty minutes apart on empty stomach; or by 6 gm. of aspidium, 10 cc. of mucilage of acacia, 40 gm. of sodium sulfate, and water q.s. 100 cc. duodenally. No purgation after medication is needed. Is aspidium is unavailable, 1 gm. of hexylresorcinol in 20 cc. of water is given duodenally followed by sodium sulfate two hours later.

Fish tapeworm: Aspidium as for taeniasis.

Intestinal schistosomiasis japonica and schistosomiasis mansoni: Potassium antimony tartrate (tartar emetic). 0.04 gm. of 0.5% solution in freshly distilled water intravenously very slowly. The subsequent doses are increased by 0.02 gm. up to a maximum of 0.14 gm. in a single injection. Injections are given on alternate days. If severe cough, nausea, or vomiting occurs, total dosage is given in two divided doses an hour apart. Patient remains in bed an hour after each injection.

If contraindicated, Fuadin is given. Children receive 7 gm. of a 7% solution of Fuadin intramuscularly in twenty daily injections. Infants under 1 are given an initial dose of 0.05 cc., gradually increased to 2.5 cc. Older children are given 1 cc., gradually increased to 4 cc.

Schistosomiasis haematobium: Fuadin as for intestinal schistosomiasis.

Schistosomal granulomas: Potassium antimony tartrate as for intestinal schistosomiasis. If unsuccessful, surgery may be necessary.

Myiasis and canthariasis: Sodium sulfate purgation and nonmedicated enemas.

§ DIAGNOSIS OF SILICOSIS is facilitated by recognition of two symptoms described by Marcel Maulini, M.D., of Haute Saone, France, as paracardiac pain and the knee sign. Paracardiac pain, one of the first symptoms of silicosis complicated by respiratory or cardic insufficiency, is sharp, and usually occurs in the paracardiac region to the right, left, or below the heart, although sometimes in the precordium. Most frequently the pain appears without apparent cause or after coughing or rapid walking. The knee sign, too, appears among dyspneic silicotic workers. The patient feels suffocated, places his right knee on the ground, and presses his chest forcibly against his left knee to obtain relief. The two symptoms warn of a worsening of the patient's condition and should be recognized as indications for special examinations to determine pathogenesis specifically.

Indust. Med. & S. 20:211, 1951.

Myocardial Infarction: Prodromal Symptoms

PATRICK MOUNSEY, M.D.*

Postgraduate Medical School of London

In approximately 30% of cases of myocardial infarction, the patient has premonitory variations of angina pectoris. If these warning indications are discerned early enough, prophylactic measures such as rest and anticoagulant therapy may avert disaster.

The cause of anginal prodromal pain is probably a process of gradual diminution in the lumen of a coronary artery with consequent increasing myocardial ischemia, finally culminating in infarction with coronary occlusion. The occlusive lesion may be a growing thrombus, subintimal hemorrhage, atheromatous plaque, or gradual sclerosis.

In 139 cases of myocardial infarction, Patrick Mounsey, M.D., found that 40 patients had experienced premonitory manifestations. The most frequent indication, present in 29 of the 40 patients, was crescendo of symptoms during the short period of prodromal pain. Other distinguishing features were the prolonged nature of the attacks and the inconstant relation of the pain to effort.

The pain was most often constricting, occasionally a dull ache, and appeared in the sternal or precordial area, sometimes radiating to the arms, shoulders, neck, jaws, or epigastrium. The sensation was usually sudden, but frequently preced-

ed by vague substernal discomfort of the same type some weeks earlier.

The time between onset of pain and occurrence of myocardial infarction varied from three days to twelve weeks, usually being about three and one-half weeks. All but 1 patient noted pain greater than any previously experienced, which represented the summit of the crescendo of symptoms and marked the time of actual infarction.

The attacks varied between five minutes and six hours and responded to rest in all but 7 cases. In 18, the pain occurred only with effort and never at rest, while an equal number noted pain both on exertion and at rest. Dyspnea accompanied the prodromal anginal pain in half the patients. Of those with warning manifestations, 21% had had typical angina pectoris, compared to 32% of the others. After the first infarction, angina developed in 79% of the patients with prodromal symptoms, but in only 59% of the others.

The angina appearing after myocardial infarction is often atypical, lasting longer than usual and sometimes coming on when the patient is resting. Those who did not have angina after a first myocardial infarction did not have prodromal symptoms before the second infarction.

Electrocardiograms were obtained

from 10 patients during the prodromal period and were of three main types: [1] without clear evidence of myocardial ischemia, 4 cases, [2] with ischemic changes after exercise, 2 cases, and [3] with evidence of ischemia at rest, 4 cases. The second type had S-T depression in leads V3 and V5. The third group had S-T elevation and T-wave inversion in the chest leads, without pathologic Q-waves.

Evidences of ischemia appeared in every instance in which an exercise tolerance test was performed for a patient with a normal resting electrocardiogram. During the prodromal period the blood pressure, temperature, sedimentation rate, and white blood count were all normal.

The mortality rate was 15% in the group of patients with prodromal symptoms, and 50% for those without antecedent pain.

Analgesic Use of Dromoran Hydrobromide

V. K. STOELTING, M.D., R. A. THEYE, M.D., AND J. P. GRAF, M.D.*

PREOPERATIVE medication, especially for young or elderly patients, is successful with dromoran hydrobromide. The compound is potent and long acting, has a wide margin of safety, and causes little respiratory depression.

V. K. Stoelting, M.D., R. A. Theye, M.D., and J. P. Graf, M.D., of Indiana University, Indianapolis, describe results with the agent in 1,500 cases. The patients' ages varied from 3 months to 89

vears.

The drug, 3-hydroxy-N-methylmorphinan hydrobromide, a synthetic phenanthrene ring compound, is usually administered subcutaneously with atropine sulfate or scopolamine hydrobromide, sixty to ninety minutes before induction of anesthesia.

In emergencies, when rapid action is needed, the analgesic, diluted with distilled water to a total of 5 cc., may be given intravenously slowly over a period of two to three minutes, fifteen to twenty minutes before anesthesia.

Persons receiving dromoran do not experience pain or anxiety. Though appearing drowsy, they readily respond to questions and instructions. Euphoria, hallucinations, and disorientation are not evident.

Among the 1,500 patients, 98 had unsatisfactory premedication. All but 3 of these failures could be attributed to errors in dosage or administration. Dosage has now been established for the various ages. In 2 cases, apnea occurred, and nausea without emesis appeared after administration of the analgesic in 1 case.

* The use of dromoran hydrobromide (3-hydroxy-N-methylmorphinan hydrobromide) for preoperative medication. Anesthesiology 12:225-229, 1951.

Management of Thyroid Crisis

JAMES D. RIVES, M.D., AND ROBERT M. SHEPARD, JR., M.D.*

Louisiana State University, New Orleans

Tulsa, Okla.

IN regions of the United States where thyroid disease is rare, physicians tend to rely on medical treatment far beyond the limits of usetulness and safety.

Failure to operate for toxic goiter or inadequate premedication before surgery may result disastrously. The modern antithyroid drugs now given preoperatively are not curative. If used in place of resection, apparently successful medication may be follow-

ed by relapse.

In the New Orleans Charity Hospital, 25 crises were observed among 484 cases of thyrotoxicosis during 1942 through 1949. Although the rate fell to 4.8% from 9% in preceding years, mortality was 40%, and most of the 10 deaths were preventable. James D. Rives, M.D., and Robert M. Shepard, Jr., M.D., believe that the same situation prevails wherever thyroid disease is uncommon. The problem is greatest when relatively rare.

In large clinics dealing with an intelligent, prosperous group, intermittent preliminary care may be satisfactory. But in the lower economic range, many who are treated as outpatients cannot rest properly at home or afford the prescribed drugs. Some never return. For this class, treatment within the hospital is the only effective plan.

Postoperative crises usually begin \$ Thyroid crisis. Am. Surgeon 17:406-418, 1951.

within twelve hours after surgery and last two to five days, sometimes six hours to eight days. In fatal cases, death ordinarily occurs within two days after onset.

Like heat stroke, the condition involves complete failure of the heatregulating mechanism. Fever rises above 103° F., the pulse rate beyond 140 per minute, and restlessness results in psychosis and coma.

About 1 in 5 persons has a minor crisis after thyroidectomy. Temperature and pulse rates are lower and activity is less violent than with true crisis, but if neglected the disturbance may grow to major proportions.

Therapy should be directed at control of the deranged heat-regulating mechanism through reducing heat production and increasing heat elimination. Oxygen is administered to interrupt the vicious circle of air hunger, struggle for breath, rising temperature, and still deeper anoxia. Sedation must be profound.

Ideally, the surrounding air should be cold and dry. In a hot, humid climate, however, the patient's head and shoulders may be placed in an oxygen tent and the rest of the body in old-fashioned ice packs.

Water is needed. Intravenous glucose may protect glycogen reserves. Iodine, thiouracil, thiamin, and adrenal cortical hormones have been tried but probably act too late.

Sphincterotomy in Pancreatitis

HENRY DOUBILET, M.D., AND JOHN H. MULHOLLAND, M.D.*

New York University-Bellevue Hospital, New York City

THE etiologic factor in most cases of inflammation of the pancreas is reflux of bile under tension into the pancreas.

Reflux can occur only when the bile duct and the duct of Wirsung enter the duodenum through a common passageway and when the papilla of Vater is occluded. The most common cause of such occlusion is spasm of the sphincter of Oddi. Therefore, Henry Doubilet, M.D., and John H. Mulholland, M.D., advocate section of the sphincter. The procedure, which entails cutting a tiny muscle only, is simple and usually effective.

A common passageway is found in nearly all cases of pancreatitis and can be demonstrated in several ways. Cholangiograms may be made at the time of surgery with Diodrast injected through either the cystic duct or the common bile duct while the sphincter of Oddi is rendered spastic by the introduction of hydrochloric acid through a Rehfuss tube into the duodenum.

If the sphincter is to be cut transduodenally, secretin is injected intravenously after the duodenum is opened. The ensuing flow of pancreatic juice will aid in visualizing the opening of the pancreatic duct.

Another means of demonstration is insertion of a T-tube into the common duct after the sphincter has

been cut. With the T-tube in place, the intraductal pressure is low and the flow of pancreatic juice after stimulation by secretin is partly diverted up the common bile duct and mixes with the bile. Analysis of the bile for amylase indicates the degree of reflux of pancreatic juice (see illustration). Without a common channel, no reflux will occur.

At surgery, the gallbladder is removed, whether healthy or diseased. The sphincter may be sectioned through the common duct by a special instrument or transduodenally through a small incision in the anterior wall of the duodenum. The



duodenal wall should not be injured, since the oblique passage of the common duct through the wall prevents duodenal reflux after sphincterotomy.

* The results of sphincterotomy in pancreatitis. J. Mt. Sinai Hosp. 17:458-462, 1951.

If postoperative studies by cholangiography or reflux examinations are to be made, a T-tube is placed in the common duct. In a few cases, the common duct is closed and a drain placed down to the area.

After sphincterotomy, about 80% of the patients gain weight and have no further attacks of pain. Results are poor for about 5%; gastrointestinal symptoms persist but pancreatitis does not recur.

Alcohol may be a specific etiologic factor in a small number of cases, since the operation is unsuccessful for severe chronic alcoholics.

Surgical decompression of the biliary tract alone is a useless and dangerous treatment for acute pancreatitis and is of only temporary value for chronic pancreatitis.

Other modes of treatment entail

the following definite disadvantages:

- Destruction of the sensory nerves leading from the pancreas by sympathectomy or celiac ganglionectomy may abolish pain but does not stop the progress of the disease and also removes all sensory reflexes produced by other diseases of the gastrointestinal tract.
- Prevention of the reflux by tying the pancreatic duct may deprive the intestine of pancreatic juice unless the accessory duct is open. Tying the common bile duct and anastomosing the gallbladder or bile duct to another part of the intestine is a complicated procedure. Periesophageal vagotomy to relax the sphincter and abolish the nervous phase of secretion of the pancreatic juice denervates almost the whole gastrointestinal tract.

Aureomycin Therapy for Peritonitis

LOUIS T. WRIGHT, M.D., AND ASSOCIATES*

PATIENTS with peritonitis are more effectively treated by aureomycin than by any other drug.

Louis T. Wright, M.D., Herbert Schreiber, M.D., William I. Metzger, Ph.D., and John W. Parker, M.D., report that when aureomycin was used as the sole antibiotic in unselected cases of peritonitis at Harlem Hospital, New York City, deaths were 50% less than when penicillin and streptomycin were employed.

Aureomycin is administered intravenously in 500-mg. doses twice daily. The same amount is given orally as soon as gastro-intestinal decompression can be discontinued. Dosage is proportionally smaller for children.

Side reactions are slight and no evidence of organic toxicity, including liver and kidney damage, is demonstrable. Chemical phlebitis from intravenous aureomycin hydrochloride is eliminated by use of the glycinated form.

\$ An evaluation of aureomycin therapy in peritonitis. Surg., Gynec. & Obst. 92:661-671, 1951.

Cystic Disease of the Lung

J. D. MURPHY, M.D., AND J. D. PIVER, M.D.*

Veterans Administration Hospital, Oteen, N.C.

Surgical removal is the most satisfactory treatment for cysts of the lung. Drainage of the cystic cavity may be of benefit for patients whose general condition prohibits extensive operation.

A lung cyst is usually one of three types, according to J. D. Murphy, M.D., and J. D. Piver, M.D. [1] congenital cyst of bronchial origin, [2] acquired cyst of alveolar origin, or [3] cystic bronchiectasis.

Congenital cysts have a lining of typical ciliated bronchial epithelium with a wall of fibrous tissue, smooth muscle, elastic tissue, or cartilage. The arrangement of these tissues, however, is never as orderly as that of the wall of a normal bronchus.

The cysts vary greatly in size and may be unilocular or multilocular, single or multiple. One or more communications always exist between the cysts and the adjacent bronchioles. These narrow passages are predisposed to obstruction, with ensuing infection. The cysts may contain fluid, air, pus, or blood.

Acquired cysts are blebs, pneumatoceles, or emphysematous bullae. Pulmonary blebs are collections of air just beneath the pleura in the interlobular connective tissue and result from rupture of nearby alveoli. Symptoms are slight unless the bleb ruptures through the pleura causing pneumothorax. The cause of alveolar

rupture is unknown but may result from localized infection.

A pneumatocele results from the development of a check valve mechanism by inflammatory involvement of a small bronchus serving an area of interstitial pneumonia. The pulmonary segment supplied by the involved bronchus dilates. Destruction of the intraalveolar septa is caused by the increased pressure and the primary inflammatory condition.

Pulmonary emphysema occasionally involves localized areas of the lung, forming large cavities or bullae. The cavities are rarely infected.

Cystic bronchiectasis probably originates as congenital sacculations of the bronchi. Repeated infection leads to the formation of cysts, usually in the basilar portion of the lower lobes. A large dilated bronchus is always found entering the cyst directly. Bronchiectatic cysts are lined with typical bronchial epithelium with an orderly arrangement of the stromal elements of the wall.

The symptoms of lung cysts depend upon the infection or overdistention of the cyst with compression of lung tissue. Dyspnea, cough, expectoration, hemoptysis, wheezing, pain in the chest, cyanosis, and repeated febrile attacks may occur. A chronically infected lung cyst may be erroneously diagnosed as chronic empyema.

Physical examination often gives

equivocal findings. Routine chest roentgenograms, planigrams, or bronchograms usually show the cyst. Open thoracotomy and biopsy may be necessary to confirm the diagnosis.

The best therapy is to remove the cystic areas if the distribution is not too widespread to preclude surgery. Simple excision of the cyst, lobectomy, or pneumonectomy may be done. Open or trocar drainage or needle decompression never permanently cures, but may be necessary for critically ill patients. Parenteral antibiotics, bronchoscopic drainage, and aerosol penicillin should be em-

ployed preoperatively in cases of infected cysts.

Pulmonary blebs and pneumatoceles are usually acute and self limited. Hence conservative therapy is sufficient. Pulmonary emphysema should be treated conservatively unless symptoms result from a large solitary cyst. Operative removal of this cyst may bring relief.

Surgical excision is accomplished with less difficulty and danger if the cyst is not infected. An asymptomatic cyst should be removed, since many ultimately become infected and distended.

Gastrointestinal Function after Splanchnicectomy

JOHN R. ROSS, M.D., AND M. PORTER BROLSMA, M.D.*

THORACOLUMBAR sympathectomy destroys the danger signals of peptic ulcer and biliary tract disease. Symptoms of abdominal disorders are masked after this operation, probably because of interruption of visceral sensory nerves.

The incidence of peptic ulcer or gallbladder disease is unaltered by splanchnicectomy, but symptoms of these illnesses may be diffi-

cult to recognize postoperatively.

John R. Ross, M.D., of the Lahey Clinic, Boston, and M. Porter Brolsma, M.D., of the University of Nebraska, Lincoln, recommend routine cholecystography before splanchnicectomy is performed. Also, if the patient has symptoms preoperatively suggestive of peptic ulcer, radiographic examination is indicated. If a peptic ulcer is demonstrated, strict ulcer management is required. Possibly, if the gallbladder is abnormal, cholecystectomy should be done before proceeding with sympathectomy.

With the warning symptom of pain abolished, a peptic ulcer may suddenly perforate or bleed without premonitory symptoms. Similarly, a stone in the common bile duct may cause jaundice without pain. After splanchnicectomy, abdominal pain first appears only when a somatic sensory nerve in an adjacent structure becomes in-

volved by spread of an inflammatory process.

* Splanchnicectomy: its clinical effects on the gastrointestinal tract. Gastroenterology 17:380-300, 1051.

Surgery for Congenital Atelectasis

ELDON B. BERGLUND, M.D., W. P. EDER, M.D., OSWALD WYATT, M.D.,
AND TAGUE CHISHOLM, M.D.*

General Hospital and University of Minnesota, Minneapolis

I MPERFECT expansion of the lungs is a common cause of death in the neonatal period. Surgical intervention may be lifesaving.

Congenital atelectasis probably results from collapse of a previously expanded lung and differs from alveolar dysplasia, in which the alveoli seem incapable of expansion and appear only as cords of cells. The formation of a hyaline membrane is also a possible etiologic factor.

Eldon B. Berglund, M.D., W. P. Eder, M.D., Oswald Wyatt, M.D., and Tague Chisholm, M.D., advocate surgical therapy with expansion of the lungs during thoracotomy. If the infant recovers after surgery, no further abnormality is noted.

Congenital atelectasis, alveolar dysplasia, and hyaline membrane formation occur in full-term as well as premature infants, although with greater frequency in the latter. Preoperatively, differential diagnosis is impossible. Cyanosis, supra- and infrasternal retractions, and a downhill course before operation appear in all these conditions.

Prognosis can be made at surgery since the lung with congenital atelectasis is diffusely atelectatic and the alveoli expand segmentally with positive pressure and remain expanded after the pressure is released. With alveolar dysplasia or hyaline

membrane, the lung shows some generalized expansion and improvement in circulation when positive pressure is applied but resumes the former appearance when pressure is removed. If dysplasia or membrane formation is found, early death is almost inevitable.

The conditions must be differentiated by roentgen and clinical studies from congenital heart disease, brain damage, diaphragmatic hernia, and other states causing similar symptoms.

With close cooperation between pediatrician, surgeon, and anesthesiologist, the operation is short and simple. The trachea is first aspirated by bronchoscope or catheter to remove any accumulation of secretions or mucous plugs. With local anesthetic, the chest is entered anterolaterally through an incision in the fourth or fifth interspace, while the anesthesiologist maintains a positive pressure of 6 to 8 cm. of H₂O through a tight-fitting face mask.

The ribs are retracted, the lung visualized, and the anesthesiologist then applies pressure rhythmically until all visible portions of the lung have been aerated. The pressure required is usually between 15 and 30 cm. of H₂O. If expansion does not occur at the latter pressure, the procedure is terminated.

* Surgical relief of atelectasis in the newborn. Journal-Lancet 71:179-181, 213, 1951.

Rehabilitation of the Elderly

HOWARD A. RUSK, M.D.*

New York University, New York City

CHRONIC disease is America's number one medical problem today. At the age of 60, some 250 persons out of every 1,000 suffer from a chronic illness or major disability. Over half of persons who are 80 years old need regular medical care. Since persons over 55 are expected to constitute nearly half the population by 1980, problems of chronic disease will steadily increase.

Howard A. Rusk, M.D., believes that in medical teaching greater emphasis than at present should be put on the problems of chronic disease. The young doctor should learn to gain as much inner satisfaction from the treatment of chronic disability as he does from the more dramatic therapy of acute medical and surgical problems.

Four approaches to improve the management of persons with chronic disease should be considered: [1] research into the aging process and the causes of degenerative disease, [2] prevention, [3] better definitive medical and surgical care, [4] rehabilitation and utilization of chronically ill and disabled individuals.

The first approach deals with the future and cannot be used to meet today's problems. However, much can be done in the field of preventive medicine.

The William Hodson Community tialities Center in New York City is an ex-

ample of an effective mental health program. Persons 60 years of age or over may belong to the center, which is open daily. The activities are administered through self-government. Members work at arts and crafts, visit, edit a mimeographed magazine, and plan monthly entertainments.

Not 1 of the center's more than 700 members has been admitted to a mental hospital in the institution's seven-year history. Ordinarily, in this age group for that period of time, 40 individuals would have been expected to require admission to a mental hospital.

New concepts of early ambulation and conservative surgical procedures promise much to elderly persons. Medically, the therapy must be psychosomatic as well as physiologic. If a dynamic approach is adopted for the chronically disabled, remarkable results may be achieved. For example, with intensive efforts toward rehabilitation, 90% of hemiplegic patients can be trained to get about and care for themselves; 40% are able to return to gainful work.

Besides hospital programs, a community plan of placement after discharge from the hospital is needed. When the patient has been adequately evaluated as to physical, emotional, vocational, and social potentialities and given the necessary training, a number of possibilities exist.

- If the patient's disability can be eliminated or he can be rehabilitated until no longer vocationally handicapped, full employment is possible. Most disabled patients are not vocationally handicapped if selective employment is utilized. The man's physical capacities are matched to the demands of the job.
- Patients with disabilities that prevent competition in normal society are often capable of selective work in institutions or sheltered colonies. They are given board and lodging and full- or part-time work according to ability and are paid stipends commensurate to production.
- Persons whose physical disabilities are so great that even selective employment is not effective require sheltered employment.

- Patients who are not seriously disabled may be cared for at home if provision is made for medical care supplemented by adequate social service and visiting housekeeping services. Wherever possible, provision should be made for a home work program.
- Senile psychotics may be more adequately managed if placed in small units built in population centers. Such an arrangement has been demonstrated in Vancouver, B.C., where the doctors in the communities have assumed the medical responsibility and mature practical nurses have been selected for care of the patients. These plans allow the patient to maintain contact with his former environment and to see his friends and family.

Pulmonary Embolism after Femoral Ligation

WILLIAM H. ERB, M.D., AND FRANCIS SCHUMANN, M.D.*

OLD people immobilized by hip fracture are just as likely to have pulmonic thromboembolic complications with as without ligation of both superficial femoral veins.

William H. Erb, M.D., of University of Pennsylvania and Francis Schumann, M.D., of the Philadelphia General Hospital compared results for 50 persons with fracture of the femoral neck who had both femoral veins tied off, and 50 alternate patients without ligation. Prophylactic anticoagulants were not given.

The average age was 75 years. In each group, 29 patients died, usually from senile deterioration and heart failure, and autopsies were done in about 4 of 5 cases.

Pulmonary emboli were found in 9 individuals with tied veins and in 6 without. Ligation was followed by the only death wholly due to embolism, by 6 instances of thrombosis in the proximal femoral segment, and by more edema and pressure ulceration of

the legs.

An appraisal of bilateral superficial femoral vein ligation in preventing pulmonary embolism. Surgery 29:819-825, 1951.

ACTH and Cortisone in Ophthalmology

HAROLD G. SCHEIE, M.D., GEORGE S. TYNER, M.D., JOHN A. BUESSELER, M.D., AND JOSEPH E. ALFANO, M.D.*

University of Pennsylvania, Philadelphia

CELF-LIMITED ocular lesions may be O treated with systemic ACTH or cortisone but therapy should continue for only a short time because of the hazard of undesirable side effects.

Local administration of cortisone is useful only for lesions of the anterior segment. The hormones are probably effective through blocking the effects of allergens and bacterial

TREATMENT OF OCULAR LESIONS WITH ACTH AND CORTISONE

E	221	00	21	Y12	(F)	22	or

Questionable

Unimproved.

Systemic Administration of Cortisone or ACTH

Focal choroiditis Acute diffuse nongranulomatous uveitis

Endophthalmitis phacoanaphylactica Syphilitic interstitial keratitis Optic and retrobulbar neuritis Retrolental fibroplasia Tay-Sachs disease Keratoplasty

Chronic diffuse granulomatous uveitis Acute Harada's disease Chronic Still's disease Angiospastic retinopathy Thyrotoxic exophthalmos

Local Instillations of Cortisone

Acute anterior nongranulomatous uveitis Endophthalmitis

phacoanaphylactica Retained lens material Sclerosing keratitis Superficial punctate keratitis

Marginal keratitis Chronic keratoconjunctivitis (allergic)

Phlyctenular keratoconjunctivitis Blepharoconjunctivitis

(allergic) Atypical vernal conjunctivitis **Episcleritis**

Syphilitic interstitial keratitis Keratitis metaherpetica Keratouveitis Keratoplasty Keratitis profunda

Chronic posterior granulomatous uveitis Acute Harada's disease Chronic Vogt-Kovanagi disease Mustard gas keratitis Chronic Stevens-Johnson

^{*} Adrenocorticotropic hormone (ACTH) and cortisone in ophthalmology. Arch. Ophth. 45:301-316, 1951

In treatment of 124 eyes, Harold G. Scheie, M.D., George S. Tyner. M.D., John A. Buesseler, M.D., and Joseph E. Alfano, M.D., evaluated the hormones for a wide range of diseases (see table).

In systemic therapy, ACTH or cortisone is injected subcutaneously.

ACTH is administered four times daily. As a general rule, adults receive doses of 20 to 50 mg. every six hours, children 10 mg., and premature infants 1 mg.

Cortisone is given to adults in one daily injection of 100 mg. The dose for small infants and children is not established but may be as high as for adults. Amounts to be administered are determined by therapeutic effect rather than by body weight.

Only cortisone is used in local therapy. A suspension containing 25 mg, of cortisone in 1 cc. is diluted with 5 cc. of isotonic sodium chloride solution. This generally provides a seven- to ten-day supply for one eye, depending on frequency of administration.

In the acute stage of involvement, I drop is instilled every hour or two while the patient is awake. For the subacute phase, a drop is given five times daily and, for maintenance, I drop two or three times a day. Treatment of chronic conditions has been continued for several months without ill effects.

Coxsackie Virus and Poliomyelitis

GILBERT DALLDORF, M.D., AND REBECCA GIFFORD, D.V.M.*

An inverse relationship apparently exists between prevalence of the Coxsackie virus and the frequency of paralysis. Consistent occurrence of such a difference would afford one means of distinguishing between poliomyelitis epidemics that are and are not complicated by the presence of Coxsackie virus infection, explain Gilbert Dalldorf, M.D., and Rebecca Gifford, D.V.M., of the New York State Department of Health, Albany.

The Coxsackie virus was isolated from the feces of 30, or 5.8%, of 517 patients suspected of having poliomyelitis. The usual symptoms and signs indicative of probable presence of the virus were headache, stiff neck or spine, fever of brief duration, and cerebrospinal fluid pleocytosis. Upper respiratory infection or gastrointestinal symptoms preceded the headache and muscle pain and spasm in many cases.

Clinical records of patients from whom Coxsackie virus was isolated did not differ materially from histories of those from whom virus was not isolated. Coxsackie virus was found as frequently in feces of paralytic as of nonparalytic patients with poliomyelitis.

* Clinical and epidemiologic observations of Coxsackie-virus infection. New England J. Med. 244:868-873, 1951.

Hydronephrosis of Infants and Children

MEREDITH CAMPBELL, M.D.*

New York University-Post Graduate Medical School, New York City

Persistent pyuria is the most frequent symptom of hydronephrosis, the commonest abdominal tumor in childhood. The condition is too often diagnosed as chronic pyelitis and inadequately investigated and treated.

Often, if therapy is instituted early enough, the kidney can be saved and death averted, believes Meredith Campbell, M.D., after a study of 825 cases, in 512 of which hydronephrosis was revealed by urologic studies, but not demonstrated until autopsy in 316. Nearly half of these patients were 1 year or less in age.

Hydronephrosis appears slightly more frequently in females than in males, and more often on the left; 13% of the lesions are bilateral. The condition usually results from congenital malformations that cause stricture or obstruction but may be acquired through such factors as urinary calculous disease or spinal injury. Hydronephrosis is approximately 20 times more frequent with renal reduplication than in normally formed kidneys.

The nearer the obstruction to the kidney, the more rapid and severe is the parenchymal damage. The renal parenchyma is progressively compressed between the expanding intrapelvic hydraulic mass and the dense renal capsule. The parenchymal blood supply is decreased and anoxemia

causes cellular damage. Intratubular distention augments the injury. Glomeruli are altered, many become hyalinized or disappear, while tubules dilate, shorten, and disappear.

Persistent or recurrent pyuria, present in two-thirds of cases, chills, fever, pain in the affected side, and periodic hematuria are the most frequent manifestations of hydronephrosis. Albuminuria is found in 50 to 75% of cases, but urinalysis may be essentially normal and the urine sterile even with advanced hydronephrosis.

Gastrointestinal disorders are present in half of cases. Loss of appetite, anorexia, nausea, vomiting, failure to grow, and weight loss are other symptoms. The bowel is compressed by the enlarging hydronephrosis and constipation is frequent. Neurologic manifestations such as drowsiness, lethargy, and irritability reflect the effect of urinary toxemia on the central nervous system.

A palpable mass in the upper lateral abdomen may be the only manifestation; a tenth to a fourth of hydronephroses in the young are palpable. A diagnosis by palpation alone is unreliable, however, because many renal, adrenal, and cystic tumors resemble tense hydronephrosis.

The diagnosis is confirmed only by complete urologic examination. Urographic study should be verified with retrograde pyelography, preferably bilateral. Renal function is tested by phenosulfonphthalein intravenous excretion. Blood chemistry estimations are made of nitrogenous retention, carbon-dioxide combining power and, in cases of long-standing renal damage, blood chloride, serum phosphorus, and calcium, with a view to recognition of possible renal hyperparathyroidism.

Treatment depends on the individual patient. Surgery is usually needed and in at least one-third of these cases nephrectomy must be done. Initial bilateral nephrostomy for six months may be used for intensely ill infants with bilateral infected hydronephrosis. In some cases, conservative plastic operation saves the kidney. Simultaneous chemotherapy and antibiotics should be used.

Children with unilateral hydronephrosis and one sound kidney almost always survive the operation and are alive ten years later. With untreated, well-developed bilateral lesions, two-thirds are dead in ten years; yet multiple-stage conservative surgical therapy has sometimes restored good health despite extensive irreversible parenchymal damage.

Infants of Tuberculous Mothers

BRET RATNER, M.D., ALEXANDER E. ROSTLER, M.D.,
AND PIERRE S. SALGADO, M.D.*

THE incidence of prematurity is high with tuberculous mothers, but congenital tuberculosis is extremely rare and occurs only when the mother is overwhelmingly stricken. Contagion can almost always be prevented if the baby is immediately removed from contact.

Among 260 offspring of tuberculous mothers over a twelve-year period at Sea View Hospital, N.Y., not a single case of transplacental tuberculosis was noted by Bret Ratner, M.D., of New York Medical College, New York City, Alexander E. Rostler, M.D., of Fall River, Mass., and Pierre S. Salgado, M.D., of Port-au-Prince, Haiti. All the babies survived except 4 premature infants with no evidence of tuberculosis who died the first day.

Prematurity was related to the severity of the disease in the mother. Women with arrested or chronic tuberculosis had an incidence of 22% premature deliveries, whereas 64% of those with advanced disease, and who died soon post partum, had premature infants. The high rate of prematurity is not the result of the infection but of the mothers' generally disturbed metabolism.

The birth weight of an infant born of a mother with moderately advanced tuberculosis does not differ from that of the healthy nontuberculous infant born of a healthy mother.

\$ Care, feeding and fate of premature and full term infants born of tuberculous mothers. Am. J. Dis. Child. $81:471\cdot48\pi,\ 1951.$

Retropubic Prostatectomy

ADEQUATE trial of retropubic operation has established usefulness of the approach for several different prostatic lesions. Two recent evaluations of the procedure explain applications and refinements of the technic.

Technical Considerations

EDGAR BURNS, M.D.*

MILLIN's approach is the most useful procedure for removal of large benign prostatic hypertrophies. A modification of the method may entirely supplant transurethral resection for obstruction at the vesical neck in children, believes Edgar Burns, M.D., of Tulane University, New Orleans.

Proper selection of cases and careful handling of the precapsular veins, true and false prostatic capsules, adenoma, and prostatic arteries prevent most difficulties encountered in the operation. Important considerations may be outlined as follows:

Benign prostatic hypertrophy— With the pelvis elevated to facilitate the exposure, a transverse incision is made a fingerbreadth above the symphysis pubis, separating the recti. To avoid tearing, the ligatures about the large, thin-walled precapsular veins are tied over small fat pads.

The transverse capsular incision is made between two traction sutures in the capsule, one 0.5 cm. and the other 1.5 cm. below the vesical neck. Unless the incision is deep enough to go through both true and false

capsules, troublesome bleeding may be encountered in enucleation.

After the apex of each lateral lobe is separated from the capsule with curved scissors, the prostatic urethra is severed at the apex to avoid undue traction on the membranous urethra in freeing the apex of the adenoma. Otherwise, temporary or permanent incontinence may result.

After gentle enucleation, the prostatic cavity is cleaned of small adenomas or tags, and a generous wedge is removed from the elevated vesical neck. Hemostasis is important, but a hemostatic bag is usually not necessary. A 20 or 22 F. retention catheter is then guided through the vesical neck into the bladder.

The capsule is closed by a continuous layer of No. 1 chromic catgut sutures; the traction sutures are tied, forming a hemostatic, watertight, closure. A Penrose drain is left in the space of Retzius; oozing is controlled with a light pack brought out through the abdominal wound and removed in a day or so. The drain and catheter are withdrawn in four or five days if urine is not leaking.

Vesical neck obstruction in children—The vesical neck is exposed through a longitudinal abdominal incision. An opening is made just above the internal sphincter and extended through the vesical neck and distally to expose the entire prostatic urethra.

to go through both true and false Congenital bars are excised under * Technique of retropuble prostatectomy, J. Urol. 65:856-862, 1951. vision and the raw surface is covered by approximating the cut edge with interrupted sutures. Prostatic valves may be destroyed by electrocoagulation. A catheter is inserted through the urethra; the incision in the capsule and bladder is closed with continuous sutures, completing hemostasis. The catheter is removed after the wound appears healed, usually in seven to ten days.

If the upper urinary tract is severely damaged, suprapubic drainage is instituted through a stab wound high in the bladder and continued until the tract has had full opportunity to regain function, usually six months or more.

Analysis of Results

JOHN R. HAND, M.D.,
AND ARTHUR W. SULLIVAN, M.D.*

MOOTH postoperative course, shortened hospitalization, prompt urinary control, and lack of osteitis pubis are advantages of the retropubic technic of prostatectomy. Sexual potency may be impaired, however.

In an analysis of 100 consecutive operations without a fatality, John R. Hand, M.D., of the University of Oregon, Portland, and Arthur W. Sullivan, M.D., of Portland, Ore., found retropubic prostatectomy valuable in management of benign hyperplasia, calculi, fibrosis at the bladder neck with small urethra, and carcinoma.

Over half the patients were in the seventh decade. All had hyperplasia; 13 had had cancer.

Technic—Preoperatively the blad-catheters on the ninth. Bladder is decompressed by means of spasm is infrequent and urinary of Retropubic prostatectomy: analysis of one hundred cases. J.A.M.A. 145:1513-1521, 1951.

catheter drainage-very gradually if retention has been chronic.

Low spinal anesthesia is preferred. After local infiltration of the skin with 10°_{0} procaine, a solution of 50 mg. of procaine and 10 mg. of tetracaine in 3 cc. of spinal fluid is injected into the spinal canal.

A low midline incision is employed, preserving the transversalis fascia and affording ready access to the prevesical space and the prostatic capsule.

To prevent osteitis pubis, every effort is made not to disturb the transversalis fascia in the space of Retzius. This fascia is separated in the midline with caution, avoiding trauma of any sort, especially in stripping the attachments from the pubis. At the capsule, a prostaticovesical incision is used, extending from midway in the capsule through the first centimeter of the bladder.

Unilateral firmness of the prostate and asymmetry are earlier signs of malignant changes than nodularity. Since the majority of carcinomas arise in the posterior lamella, this portion of the gland should be removed routinely when physical findings suggest malignancy and exploration is equivocal. In prostatectomy for elderly men, prophylactic removal of the posterior lamella may be a valuable procedure.

Postoperative results—Patients are able to get up on the first day and ordinarily leave the hospital in about two weeks. The Penrose drains in the space of Retzius are usually removed on the sixth day, and the catheters on the ninth. Bladder spasm is infrequent and urinary con-

trol is prompt after the catheters are withdrawn. Pyuria usually disappears within about a month postoperatively.

Of 50 patients who had had good sexual function prior to surgery, 25 noted a diminution in potency post-operatively. However, 20 of 84 patients reported improvement in sex-

ual function after the retropubic operation.

Contraindications—The retropubic approach is not used for patients whose circulation would be hampered in the Trendelenburg position. Transurethral or perineal routes are best for the obese and poor surgical risks and after previous cystostomy.

Diagnosis of Cancer of the Prostate

REED M. NESBIT, M.D., AND WHLIAM C. BAUM, M.D.*

ELEVATION of the serum acid phosphatase is pathognomonic of metastatic prostatic cancer but a normal value does not exclude possibility of carcinoma.

An elevated serum alkaline phosphatase level in absence of liver disease may indicate osteoblastic reaction to invading tumor and, with known metastases, serves as an index of the extent of spread.

With remission after castration, the acid phosphatase level promptly drops to normal, whereas the alkaline phosphatase value rises temporarily and then decreases. This fact is helpful in detecting borderline cases, since an elevated serum alkaline phosphatase that rises higher when diethylstilbestrol is given can be ascribed to cancer of the prostate. A negative response, although substantial evidence against carcinoma, is indeterminate.

In a review of 1,150 cases of prostatic carcinoma, Reed M. Nesbit, M.D., and William C. Baum, M.D., of Ann Arbor, Mich., found 40% with significantly elevated serum acid phosphatase levels. Of patients with metastases, 65% had elevated acid phosphatase values; however, this level was increased in 20% of those without demonstrable metastases. The alkaline phosphatase was increased in 86% of cases with metastases.

Elevated acid phosphatase is an unfavorable prognostic sign, since the chances for three-year survival for patients with no metastases are approximately doubled if the acid phosphatase level is normal when first examined.

Normal serum acid phosphatase with metastatic prostatic carcinoma does not imply poor response to endocrine therapy inasmuch as this value is often explained by the development of androgen independence on the part of the cancer cell.

Serum phosphatase determinations in diagnosis of prostatic cancer. J.A.M.A. 145:1321-1324, 1951.



THE AMERICAN ACADEMY OF GENERAL PRACTICE

1951 ANNUAL SCIENTIFIC ASSEMBLY
HIGHLIGHTS OF THE PROCEEDINGS
March 19-22, 1951
San Francisco, Cal.



Registrations for the meeting totaled more than 4,000.

A Statement of Principles of AAGP

MAC F. CAHAL

Executive Secretary

- A system of medical practice in which both doctors and patients are free agents guarantees to the American people the finest quality of medical care.
- Cost of medical care would be enormously reduced if every person consulted a general practitioner first in all cases of illness. At least 85% of all ills can be adequately treated by a competent general practitioner. Every family should have a family doctor.
- Every physician has a duty to the public to help organize medical practice in his community so that it will

fulfill the needs and wants of the people.

- Every competent physician should have access to the facilities of a hospital in his community where, within the limits of his training and experience, he is privileged to care for his patients as a member of the active staff.
- No physician can keep abreast of scientific progress without engaging in sustained postgraduate activities. The facilities for such continuation studies should be available to every practicing physician.



Committee meetings kept many delegates busy between general sessions.

Term "General Practitioner" Is Redefined

Several thousand physicians from every part of the United States and from neighboring countries met in San Francisco for the third annual meeting of the American Academy of General Practice.

More than 4,000 registrations offered quantitative measure of interest, an interest that reached a high level on the opening day and came to a climax with a panel discussion, "Counseling Factors in Family Life."

The temper of the assembly is indicated by a portion of the report of the Reference Committee on Hospitals suggesting a new definition for the general practitioner:

A general practitioner is a legally qualified practitioner of medicine who does not limit his practice to a particular field of medicine or surgery. In his general capacity as a family physician and medical adviser, he may, however, devote particular attention to one or more special fields, recognizing at the same time the need for consulting with qualified specialists when the medical situation exceeds the capacity of his own training and experience.

Dr. John W. Cline, now President of the American Medical Association, addressed the opening session and stressed the fact that the Academy is unique in its requirement of one hundred fifty hours of postgraduate study every three years.

Dr. Stanley R. Truman of Oakland, Calif., is succeeded as president by Dr. J. P. Sanders of Shreveport, La. Dr. R. B. Robins, of Camden, Ark., is President-Elect, and Dr. Fred A. Humphrey of Fort Collins, Colo., Vice-President.

Able speakers covered the wide range of the doctor's interests.





Dr. Kern

Scientific Session

Geriatric Patients

RICHARD A. KERN, M.D.

Professor of Medicine, Temple University School of Medicine, Philadelphia

No one will admit that he is old until that fact is perfectly obvious to everyone else. Therefore, the doctor who limits his practice to geriatrics would probably starve to death. Every physician must look for the beginnings of aging in each of his patients, see what can be done to retard the process, and ameliorate and mitigate the effects. A proper mode of life for the aging, as well as the aged, includes: [1] work to give life a purpose, [2] rest to conserve and restore strength, [8] diversion to preserve vigor of mind, and [4] moderation in all things. Attention to mental hygiene in youth will pay dividends in better adjustment and greater happiness in old age.

Pictures and summaries from "Tele-Clinic" No. 2, Medical Film Abstract of Scientific Assembly of the American Academy of General Practice, Wyeth, Inc., Philadelphia. Scientific Session

The Management of Toxemias of Pregnancy

RUSSELL R. DE ALVAREZ, M.D.

Professor of Obstetrics and Gynecology, University of Washington School of Medicine, Seattle

v general, management of the toxic patient is based upon utilization of a neutral diet, ammonium chloride, abundant fluids, bed rest. sedation, and hospitalization. Essentials of good nutrition are not sacrificed, and sufficient water must be given to carry off products of metabolism. Ammonium chloride is given in 3-gm. doses three times daily for four days. Phenobarbital, 0.5 to 0.75 gr. four times daily, usually suffices for sedation. The severely toxic patient may require 5-gr. doses every five hours. With convulsions, pentothal sodium in 0.25-gm. doses is favored. Even patients with slight toxemia should have preliminary hospitalization for inculcation in home care. All other types should be hospitalized promptly for complete care. Labor is induced only when medical treatment fails to control the toxemia. Cesarean section is used only for extra toxemic indications.

Dr. de Alvarez



Scientific Session

Rheumatic Disorders in General Practice

RICHARD H. FREYBERG, M.D.

Associate Professor of Internal Medicine, Cornell University Medical College, New York City

DECAUSE of the high incidence, B rheumatic diseases are an important consideration for the general practitioner. Although similar in symptoms, the disorders differ greatly in etiology and many times in clinical manifestations and in treatment. Successful management differs according to the type of disorder. The four most important forms are rheumatoid arthritis, rheumatic fever, osteoarthritis, and gouty arthritis. Intelligent application of the knowledge now available to institute a program of treatment usually will reward the patient and physician with gratifying results. Recently the use of cortisone and ACTH has become important. Three attributes characterize each of these hormones insofar as their antirheumatic effect is concerned: the speed, the magnitude, and the dependability of their effects. One should realize that these hormones are not cures. Temporary suppression is all that can be expected.







Dr. Howard

Scientific Session

The Injured Hand

L. D. HOWARD, JR., M.D.

Assistant Clinical Professor of Medicine, Stanford University, San Francisco

THE man in general practice usually must decide about the primary repair of acute hand injuries. Accurate diagnosis necessary for successful treatment demands ready knowledge of the functional anatomy and careful examination. Debridement should remove all devitalized tissue. Saving unsalvagable parts is like storing burned-out light bulbs. Finger fractures require positive reduction and fixation, but not traction. Supinate your forearm, let the wrist fall in dorsiflexion, and you have the position for fixation. Use of a light elastic type of splint maintains the hand in position of function after operation, and permits undamaged parts to move. Occupational therapy is preferable to physiotherapy. Time is necessary for recovery. Function will improve for a year. Remind the patient that for actual accomplishment of work, with few exceptions, disability is in the head and not the hand.

Counseling Factors in Family Life

Among the several symposia presented at the meeting of the American Academy of General Practice, one which attracted considerable attention explored counseling factors in family life. Members of should not close the door to either the parents' or child's grievances but should encourage conversation. If the doctor shows a sympathetic understanding and readiness to listen, the parent or the child is more



Panel discussions were very popular with the delegates.

the panel were selected to represent various groups working on this vital problem. The discussion was of such unusual interest that the moderator, Dr. George T. Harding, President, and Professor of Psychology at the College of Medical Evangelists, Los Angeles, asked each of the participants to summarize the highlights of his contribution.

Panel Highlights

DR. DOROTHY BARUCH

Clinical Psychologist, Author, and Parent

K NOWLEDGE of both emotional and physical aches and pains is essential to the doctor. The physician

likely to unburden himself of his complaints. That gives your medication a better chance to work.

DR. EVELYN MILLIS DUVALL

Executive Secretary of National Council on Family Relationships

AMERICANS are the most married people on earth. We marry in larger numbers and at younger ages today than ever before. Wartime is accelerating these trends for a very large number. We find, however, that teen-age marriages are risky; more of them break up in divorce than marriages in any other age group in the United States. The challenge





Dr. Duvall

Dr. Menninger

Dr. Kavinoky

that all of us face is to prepare ourselves to give effective counseling and education for marriage and for family life.

DR. WILLIAM C. MENNINGER

General Secretary of the Menninger Foundation

Speaking as a physician, the subject of counseling factors in family life seems to me to focus on the importance of the interpersonal relationships between the physician and the patient. Recognition of the need

for counseling implies the acceptance of the social responsibility in terms of family life by the physician. The very fact of this discussion before a medical group is an acceptance of the responsibility for behavior as a medical problem. It indicates an awareness that many physical and emotional problems which come to the physician's attention are directly related in their etiology to problems in family life. The greatest significance of this recognition is the renewed emphasis placed on the power of emotions in the treatment of



Dr. Baruch



Dr. Popenoe

Dr. Truman



problems arising from love and hate, and their relationship to health.

DR. PAUL POPENOE

Director, Institute on Family Relationships, Los Angeles

NE of the chief difficulties in this field has been to get people to realize that they can profit from counseling. Unfortunately, marriage in this country is largely built on the romantic platform which holds that love is a mysterious visitation coming out of the nowhere into the here. As long as we have marriage based on this romantic infantilism, it is going to be difficult to get people to accept any counseling help. In

many cases, therefore, we find that the first thing to do is to get people to realize that they can control their own destiny, that marriages are not predestined.

DR. STANLEY R. TRUMAN

President of the Academy of General Practice

THE general practitioner is in a peculiar position more potent than Dr. George Harding

preacher, priest, teacher or parent. He stands in relation to the patient as a super-father or a lesser god. To him, all intimacies of life are open. The ill, anxious, or guilty patient even suspects the doctor can read his mind. Many times it is the family doctor who first recognizes the patient's need. He is the only one who is in position to unite, by wise counsel, the forces that can heal the patient.

DR. NADINA R. KAVINOKY

Lecturer, Author

THE physician is in a key position when he interprets during a premarital examination the normal proc-

> esses and preparation for family life. During the period of prenatal care he determines where he can develop resources which hold the family together. He also can treat many of the problems such as frigidity and fears during the marital period and which, when solved, will create a happier family, a family that not only releases the sex tension, but also the nervous tension of living.



Carcinoma of the Uterus

ROBERT JAMES CROSSEN, M.D.*

Washington University, St. Louis

In frequency of malignant diseases in women, uterine cancer is second only to carcinoma of the breast. Early diagnosis is the key to improved rate of cure, believes Robert James Crossen, M.D.

DIAGNOSIS

Cervical cancer is diagnosed by vaginal and cervical smears and biopsy.

The greatest value of the smear method is for unsuspected carcinoma without cervicitis. The reliability of the procedure, especially with modern technics, is demonstrated by the increasing number of proved cases of carcinoma in which the condition was detected by smear but not by biopsy. Ayre's method or Novak's two-edged spoon technic is preferable for cervical, and Papanicolaou's pipet method for vaginal smears. However, before radical therapy is started, results should be confirmed by biopsy or curettage.

Biopsy is usually done for diagnosis when the cervicitis is extensive.

The whole diseased area should be excised for examination. Thus all the tissue can be studied and the nidus for future carcinoma is also removed.



TREATMENT

Squamous cell carcinomas of the cervix comprise 75 to 85% of uterine cancers. Radiation is the best treatment if the lesion is not confined to the cervix.

Recent accurate and simplified calculation of the isodose for each patient aids in assuring adequate therapy. Effectiveness of the method apparently makes lymphadenectomy unnecessary.

For preinvasive cervical carcinomas, radical treatment, preferably radiation, is recommended for women at or near the menopause. More conservative treatment may be justified for younger patients.

The cervix should be frequently examined by the smear method during pregnancy. If carcinoma is detected, vaginal delivery should be avoided. In early pregnancy, a high supravaginal hysterectomy with postoperative radiation by radium and roentgen ray is done. In late pregnancy, with a viable fetus, a Porro

operation followed by radiation seems advisable.

Curettage and vaginal smear are diagnostic procedures for carcinoma of the uterine fundus. In such cases.

* Malignancies of the uterus. Texas State J. Med. 47:287-242, 1951.

radiation plus operation is still considered the most effective treatment by most authorities in this country. Radiation used alone offers the best chance of survival for poor operative risks.

PREVENTION

Prophylaxis of uterine cancer is based upon recognition of two predisposing factors: chronic cervicitis and involutional changes of the uterus.

If irritation persists after conservative local treatment of superficial endocervicitis or superficial cervical erosions, complete removal of involved tissue is necessary. Wide conization is preferred in cases of chronic cervicitis. This method seems to prevent development of cancer at these sites; 63 patients thus treated had subsequent normal deliveries.

The potential danger of malignant disease is real in the involuting uterus. Erratic growth, such as hy-

perplasia and carcinoma, occurs. Delayed menopause and abnormal bleeding are warnings that involution is not proceeding normally.

For treatment of myomas of patients at or near the menopause, complete hysterectomy with bilateral salpingo-oophorectomy, to eliminate involutional organs with attendant cancer possibility, is preferred. For poor operative risks, radiation is used with curettage and conization to exclude carcinoma.

An indiscriminate use of large amounts of estrogens should be avoided because of the possible hyperplastic and carcinogenic effects of these hormones. Moreover, the reappearance of bleeding puts patient and physician in a quandary as to whether the condition is caused by withdrawal of estrogen or is a sign of early carcinoma. Most menopausal symptoms are controlled by slight sedation and small amounts of oral estrogen.

¶ MULTIPLE SCLEROSIS may improve during succinate therapy. which stimulates oxidation in the central nervous system. Most patients feel better and about one-half show sensory and motor gain, finds Robert B. Aird, M.D., of the University of California, San Francisco. In 10 cases, preliminary intravenous doses were given. With the patient in a recumbent position, 20 cc. of a 30% solution of sodium succinate is injected, the first 4 or 5 cc. at 1 cc. per second and the rest more slowly. Function is tested for one-half hour. Orally, 1 tsp. of sodium succinate powder is taken three times a day in 1 oz. of water, followed by tomato juice. Within two days, 2 tsp. may be allowed three times daily. Although toxic reactions are unusual, parenteral therapy may cause flushing and an urticarial rash. Oral administration occasionally produces epigastric burning, nausea, vomiting, and possibly constipation or increases urinary urgency. Examination is done weekly or monthly. Dosage may be reduced but rarely needs to be stopped because of side reactions.

Neurology 1:219-227, 1981.

Treatment of Congenital Clubfoot

J. WARREN WHITE, M.D., AND WILLIAM H. GULLEDGE, M.D.*

Shriners' Hospital for Crippled Children, Honolulu

Skintight casts over sponge rubber pads offer an excellent method for correcting clubfeet.

A corrective kinetic force is maintained for two weeks or more with-

out wedging, pressure sores are rare, the cast does not slip, and much time and expense are saved. Other methods such as the wedged-cast of Kite or the Denis-Browne splint require almost constant attention or frequent trips to the hospital.

J. Warren White, M.D., and Cmdr. William H. Gulledge, M.C., U.S.N., apply the casts as follows:

Roentgenograms are procured before treatment is commenced. The skin of the foot and ankle is then painted with compound tincture of benzoin or an adherent. An assistant holds the child's foot by the toes in the desired position and, with the other hand, grasps the leg just above the flexed knee.

One pad of sponge rubber 1½-in. square for newborn babies, larger for older children, and ¼-in. thick is placed next to the skin over the sinus tarsi and cuboid on the lateral side of the foot, another pad is put just back of the heel, and a third over the medial side of the first metatarsophalangeal joint, running a little proximally.

The pads are held in place by the sticky adherent.

A circular, skintight plaster cast, applied from the tips of the toes to just below the knee, is also held

to the skin by the adherent. The plaster is not carried above the knee since employment of the thigh element with a flexed knee to gain external rotation constitutes an unwarranted strain on the knee.

While the plaster sets, the surgeon grasps the child's right foot with the right hand and the left foot with the left hand. The thumb passes un-

der the sole, with the ball of the thumb under the cuboid, the index finger across the dorsum, and the long finger behind the heel, to mold the plaster and correct the position of the foot. After the plaster has set, a short length of elastic bandage is wrapped around the top of the cast.

During active management, the cast is changed only at two-week intervals, with adduction being corrected first and then inversion. Removal of the cast is usually done by soaking or by a small rongeur or small sequestrum forceps.

At the end of the fourth or fifth plaster change, the adduction is corrected if the foot remains in abduc-

* Skin-tight casts for treatment of club-foot. J. Bone & Joint Surg. 38-A:475-477, 1951.

tion when allowed to hang down and if, on attempting dorsiflexion, the foot is pulled up and out by the common extensor tendon rather than being pulled in and up by the anterior tibial tendon.

A roentgenogram should show the midline of the talus pointing toward the first metatarsal in the anteroposterior view. If inversion has been corrected, the calcaneus and talus are seen to be separated at the anterior ends, forming an angle of about 30° in the anteroposterior view. Unless the adduction and varus are cared for before the correction of the equinus is attempted, manipulation of the foot into dorsiflexion will be difficult, and a convex plantar deformity in the midtarsal jointcommonly known as rocker-bottomwill develop.

Correction of the equinus of a

previously untreated foot is usually accomplished by two or three more plaster changes; the last plaster remains on for three to four weeks as a holding cast. During equinus correction, pressure must be exerted under the cuboid and not against the heads of the metatarsals. If resistance seems great or a rocker-bottom starts to develop, the situation should be reviewed, since the varus and the adduction have probably not been completely corrected.

When the plaster treatment is completed, the feet are held in an over-corrected position by a crossbar attached to the soles of the shoes, the right and left shoes being interchanged. The splint is worn continuously until the child reaches walking age, when corrective shoes are fitted and the splint is worn only at night.

Sural Nerve Block for Ankle Sprains

IAMES B. HUTCHESON, M.D.*

Local injection of the sural nerve with procaine relieves the pain of acute lateral ankle sprain more satisfactorily than direct injection into the injured area. The latter procedure sometimes causes additional trauma to soft tissue so that pain recurs in three or four hours, explains Lt. James B. Hutcheson, M.C., U.S.N.R., of the Norfolk Naval Shipyard, Portsmouth, Va.

After sural nerve paresthesia has been established with a small-gauge hypodermic needle, 7 cc. of 2° procaine solution is introduced regionally beyond the posterolateral surface of the fibula, 3 in above the external malleolus. An elastic bandage is applied; the patient should exercise the ankle freely for the next few hours.

The procedure has been used for 9 patients. In no case was a second injection necessary and all patients were immediately able to resume work, usually of an arduous type.

* Acute lateral ankle sprains treated by sural nerve block, U.S.A.F. Med. J. 2:799-801, 1051.

Rotation Test in Diagnosis of Knee Injury

HERBERT W. VIRGIN, JR., M.D.* St. Francis Hospital, Miami

Semilunar cartilage in juries of the knee joint are diagnosed effectively in about 90% of cases by simple rotation of the leg.

Herbert W. Virgin, Jr., M.D., uses a modified Mc-Murray technic as follows:

The patient sits on the examining table with knee 8 in. beyond the table's edge so that foot and leg fall into a relaxed position with the knee at about 90 degrees of flexion. The examiner steadies the patient's knee with one hand and, employing the patient's foot as a lever, fully rotates the leg on the femoral condyles internally (Fig. 1).

The tibial plateau is prominent. Relaxation of the ligaments therefore allows for greatest amount of rotation. Next the tibia is fully rotated externally on the femur (Fig. 2). The internal tuberosity is prominent.

The patient is asked to report any unusual sensations within the knee joint. Usually, if the cartilage is rim torn, dislocated, or fractured with



Fig. 1



Fig. 2



Fig. 3



Fig. 4

displacement of a fragment, the patient describes acute pain at the site of the cartilage injury upon extreme rotation of the tibia on the femur. This is frequently coupled with a snapping or crunching within the joint, of which the patient is aware and which the examiner may feel with the hand over the knee.

The test is repeated, but before internal and external rotation, the leg is flexed by pushing the foot under the table as far as possible (Fig. 3). Then internal and external rotation are alternately applied with force while the leg is gradually extended, the knee joint being steadied and palpated by the other hand (Fig. 4). When pain or snapping is not elicited by the first part of the test, clicking with excruciating pain may occur with full extension in the second.

In the first part of the test, the collateral ligaments are relaxed at 90 degrees of flexion. Hence the pain of rolling the con-

* Diagnostic aspects in 300 knee injury cases. South. M. J. 43:1017-1023, 1950.

dyles of the femur over the injured cartilage is not so acute as in the second part, when the ligaments are taut with the knee in extension.

Positive reaction to the rotation

test may also result from Osgood-Schlatter's disease, avulsion of the tibial tubercle, fracture of the tubercle, or a foreign body in the patella tendon.

Selective Cortical Undercutting for Mental Illness

WILLIAM BEECHER SCOVILLE, M.D., EDWARD K. WILK, M.D., and anthony J. Pepe, M.D. $^{\sharp}$

FRACTIONAL lobotomy has many advantages over complete lobotomy, which causes great personality blunting and therefore should be used only for severely deteriorated psychotic patients.

Among the various operations that have been attempted to permit localization of function and thus curtail damage to the higher realms of creative imagination, foresight, ambition, and social sensitivity, William Beecher Scoville, M.D., and Edward K. Wilk, M.D., of Yale University, New Haven, Conn., and Anthony J. Pepe, M.D., of Norwich State Hospital, Norwich, Conn., believe that selective cortical undercutting offers technical merits in precision, facility, accessibility, and preservation of blood supply.

The psychiatric results of the procedure approximate those procured by standard lobotomy but entail significantly less personality deficit, although only one-third the amount of cortex is interrupted.

Results in the affective psychoses and neuroses, obsessive-compulsive and tension states are universally good regardless of the area selected, indicating that complete lobotomy is not necessary in such cases. Undercutting of the superior surface or the orbital surface is recommended for schizophrenic and severe affective psychoses. Effects in schizophrenia are more favorable in paranoid cases hospitalized less than nine years. Pain, if accompanied by addiction, psychalgia, or excessive anxiety, also responds well to undercutting of the superior surface.

More apparent personality deficit is found with nonpsychotic than with psychotic patients after any type of lobotomy. Hence only fractional lobotomies should be used for patients with mood disorders, neuroses, or pain. Undercutting of the orbital surface appears to be the ideal operation for psychoneuroses and slight mood disturbances because of the almost complete absence of personality change.

^{*} Selective cortical undercutting. Am. J. Psychiat. 107:730-738, 1951.



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Local Therapy of Scalp Ringworm

ALBERT M. KLIGMAN, M.D., AND W. WARD ANDERSON, M.D.*

University of Pennsylvania, Philadelphia

Because of failure to penetrate the hair adequately, fungicides may be ineffective in local treatment of tinea capitis. The previous good results claimed for various agents can largely be ascribed to spontaneous cures, which occur in about 70% of cases.

In a study of 199 cases of scalp ringworm caused by *Microsporum audouini*, Albert M. Kligman, M.D., and W. Ward Anderson, M.D., noted that 69% of patients who applied fungistatic zinc ethylene bis-dithiocarbamate incorporated into a carbowax base were cured, but so were 63% of those using the carbowax base alone. The time required varied greatly, but was usually about five months.

Good results can almost invariably be anticipated if inflammation develops. One-third of the patients had initial or subsequent inflammation during treatment; all were cured, except 2 who had contact dermatitis from the drug. All of 28 individuals with kerion were cured. The inflammatory response is probably a specific immuno-allergic reaction and not a drug reaction.

The response to local therapy is partially dependent upon the extent of the initial involvement. Only one-third of patients with more than a quarter of the scalp surface involved benefited from local medication, whereas two-thirds to threequarters of those with single small lesions were cured. The time required for cure when more than one-quarter of the scalp was affected was usually 3 to 4 times greater than average.

The preparations employed in the local therapy of tinea capitis are fungistatic in vitro, yet, because of inability to penetrate the hair sufficiently and destroy the hyphae, the therapeutic results are unsatisfactory. The hyphae remain at the same depth in the hair root and are actively proliferating in a downward direction just above the bulb, keeping pace with the upward growth of the hair. Adequate penetration of the fungicide in this area is unlikely.

With manual epilation, the infected hair roots are broken off at one-third to one-half lengths because of disintegration by the fungus hyphae. The actively growing part of the fungus in the base is undisturbed. Roentgen epilation causes ejection of the entire hair from the follicle.

The so-called cure which occurs at puberty is not rapid and may be similar to prepubertal spontaneous cure. The criteria for continuing local therapy for such patients should be approximately the same as for prepubertal children.

* Evaluation of current methods for the local treatment of tinea capitis. J. Invest. Dermat. 16:155-168, 1951.

FIRERGLAS* REPORTS TO THE PROFESSIONS



SELF-HEATING

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In treating hand and arm infections the conventional hot pack poultice requires regular renewal, with likelihood of cooling between renewals, and possibility of burning. To overcome such faults, a lightweight pack requiring no additional heat has been devised. It consists of an expendable plastic inner sleeve and an outer sleeve of plastic sheeting, with a layer of Fiberglas Aerocor* insulation between the two, to prevent escape of body heat.

Thermocouple readings show that with the new pack, the skin maintains an average of 99 deg. F. temperature in its water vapor-sealed atmosphere, where conventional packs achieve no better than 97 deg. F., without danger of burning, and decline from that point between renewals. The new pack weighs 14 ozs., the usual pack,

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*Fiberglas (T. M. Reg. U. S. Pat. Off.) and Aerocor are trade-marks of Owens-Corning Fiberglas Corporation.

†C. Lloyd Claff and Chilton Crane, M. D., "Self-Heating Insulated Sleeve to Replace the Conventional Hot Pack Poultice" in American Journal of Surgery, Vol. 81, No. 6 (June 1951), pp. 695-697. The Fiberglas-Insulated sleeve, known as "Autotherm", is available from Micro Institute, Division of Image Transfer, Inc., 31 West St., Randolph, Mass.

BERGLAS

The usual good response of infection with M. lanosum or other zoophilic species to local therapy is dependent upon the development of an inflammatory reaction, which ordinarily appears with these lesions, and may be similar to the spontaneous cure which occurs in inflammatory M. audouini infections. Some M. canis infections are noninflammatory and run a course similar to noninflammatory M. audouini infections.

Roentgen epilation is the most efficient treatment for timea capitis but need not be used in most cases, especially if the scalp is involved only slightly or by an inflammatory component.

Epilation by roentgen treatment is probably the best measure when a quarter to half of the scalp is involved but should usually be deferred until local therapy has been tried two to three months.

Syphilis and Athlete's Foot

HELEN TAYLOR DEXTER, M.D.*

INTERDIGITAL lesions of syphilis may closely resemble severe epidermophytosis. Helen Taylor Dexter, M.D., of the University of Cincinnati, presents criteria, based upon a study of 10 such cases, for differentiation of the condition from athlete's foot.

Since epidermophytosis rarely causes ulcers as extensive as those of interdigital syphilis, lesions of 1 cm. or more in diameter, particularly if sharply demarcated and resistant to local therapy, should arouse suspicion. In such cases, darkfield examination and serologic testing should be undertaken.

Scrutiny of the entire skin surface and the mucous membranes may reveal other secondary luetic lesions. Id reactions of the hands are the only skin changes evident outside the involved area of the foot in epidermophytosis.

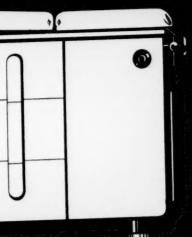
Athlete's foot begins with scaling and cracking of the skin. This process precedes interdigital ulceration. Inquiry will reveal a prolonged maceration from sweat or wetting before formation of the ulcers. The ulcers are more shallow and irregular than those with syphilis. The surrounding area is indurated and scaling, with edema, cellulitis, and lymphangitis. Enlarged inguinal lymph nodes may be found on the homolateral side; with luetic ulcers all nodes are enlarged.

Darkfield examination of material from syphilitic ulcers is almost always positive. Cellulitis and lymphangitis do not appear. The ulcers are deep, sharply demarcated, shiny, and dark at the base. The skin surrounding the ulcers appears healthy.

^{*} Interdigital infectious syphilitic lesions simulating dermatophytosis. Arch. Dermat. & Syph. 68:881-585, 1981.

Hou count find and the

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Medical Forum

Discussion of articles published in Modern Medicine is always welcome. Address all communications to The Editors of Modern Medicine, 84 South 10th St., Minneapolis 3, Minn.

Hormones and Acne Vulgaris*

Comment invited from K. A. Baird, M.D. Harry M. Robinson, Jr., M.D. Max A. Goldzieher, M.D. Abner Kurtin, M.D.

with much of the article by Drs. Marion B. Sulzberger and Victor H. Witten, especially as to the causes of acne, I would like to suggest a very different approach to treatment.

If acne is largely caused by an endocrine factor why select cases for hormonal treatment? Is there not always an immunologic factor, not just due to bacterial invasion at times, but due to an altered reaction to the presence of even normal numbers of bacteria in and around the sebaceous glands? Instead of substitution therapy with estrogens, if other measures fail. why not stimulate the gonads of all acne patients to secrete more estrogen by giving chorionic gonadotropin? In theory, results should be more permanent. Practically, it works. As one becomes more expert, this part of the treatment can be emphasized for patients whose sebum is thick or skin very oily.

Instead of thinking of foci of infection, think in terms of altering the *Modern Medicine, May 15, 1951, p. 108. body's reaction to bacteria, particularly those on the skin. Chemotherapy, antibiotics, and antiseptics do not accomplish this alteration, but reduce the number of bacteria.

Under treatment, cysts will absorb or else rupture, empty, and heal with no scars. But incision, like roentgen therapy, seems to carry considerable risk of scarring. Probably chocolate should be interdicted because of the supposed bromine content.

The following is a brief statement of my standard treatment:

A.P.L. or Antuitrin S, 500 units per week. For women give 1,000 units at time of ovulation, that is, about two weeks before first day of menstruation.

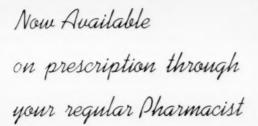
Staphylo Serobacterin Mixed Vaccine subcutaneously to alter the skin's reaction to bacteria in the following doses at weekly intervals: 0.2, 0.4, 0.8, 1.2, 1.8, and 2.5 cc. Smaller doses often result in more severe general reactions than those named. In the rare event of systemic reaction the causal dose can usually be repeated without discomfort, before increasing. In cases with much pustulation, the 2.5-cc. dose should be repeated several times at two-week intervals.

Removal of excess sebum with washing and stimulation of blood supply by cold water douching complete the treatment.

In my practice, no case has failed to improve markedly with this treatment.

K. A. BAIRD, M.D.

St. John, N. B.





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TO THE EDITORS: In my opinion, the various sex hormones should not be used in the treatment of acne vulgaris unless the patient has had the benefit of a thorough physical examination and the need for such therapy is demonstrated. Only a small percentage of patients treated with these drugs receive any benefit, and this does not justify the use of this expensive therapeutic procedure.

Excellent results in the treatment of acne vulgaris may be obtained by dietary control, hygiene, incision and drainage of the larger lesions, and roentgen treatment.

The administration of the sex hormones to adolescents may be deleterious to their general health.

HARRY M. ROBINSON, JR., M.D. Baltimore

► TO THE EDITORS: I believe that in addition to systemic treatment with estrogens, natural or synthetic, the topical application of the female hormone is of the greatest benefit to patients with acne.

Particularly in males, where I would be reluctant to use estrogen systemically for prolonged periods of time, the topical application alone has often been entirely satisfactory. Such limited administration cannot cause sufficient absorption to elicit untoward systemic reactions, yet is capable of opposing the androgenic stimulation of the sebaceous glands.

Anti-androgenic therapy in the female permits two approaches: [1] directly opposing the androgenic effects by administration of estrogen; [2] interfering with or suppressing androgen secretion. When acne is associated with menorrhagia and dysmenorrhea, the well-timed use of prolactin may control the menstrual disturbance as well as the associated acne. The effects of prolactin seem to be based on the luteotrophic properties of this hormone which support or correct the function of the lutein body.

Systemic administration of estrogens is effective. Estrogen is administered only during the second half of the cycle, beginning with the presumptive date of ovulation or even later, upon the first sign of a new skin lesion; 1 or 2 Premarin tablets, 0.05 mg. Estinyl Estradiol. or 0.5 mg. stilbestrol daily is given until the onset of the menstrual flow. Considerable reduction in the number and severity of eruptions is noted during the first month of treatment and eruptions usually do not appear thereafter while treatment lasts. The majority of patients remain free of symptoms even after termination of the treatment.

Oral estrogen administration during the lutein phase of the cycle is unlikely to disturb the menstrual performance; it remains to be seen whether this therapy will cause adverse effects in patients whose acne is associated with menorrhagia and dysmenorrhagia. In such cases, other procedures may be preferable.

The antiandrogenic treatment of acne is aimed at the basic endocrine disorder and not meant to take care of advanced, chronic, or complicated changes of the skin, especially the cystic type of acne. Even in such cases, it would seem advisable to combine appropriate dermatologic measures with oral estrogen therapy

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†Quinn, L. H., and Burnside, P. M., Eye, Ear, Nose & Throat Monthly, 30:81, Feb., 1961

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to eliminate the pathogenic hormonal factor which is likely to hinder the efforts of the dermatologist.

MAX A. GOLDZIEHER, M.D. New York City

To the editors: The observations of Drs. Sulzberger and Witten, in large measure, repeat my experience. I still believe that photosensitization, as described by Dr. Reuben Yontef and myself (New York State J. Med. 48:1606, 1948), is by far the most effective therapy for this disease.

ABNER KURTIN, M.D.

New York City

Operations for Cancer of the Bladder*

Comment invited from Evan L. Lewis, M.D.

▶ TO THE EDITORS: There is no one best treatment for carcinoma of the bladder. Each patient must be considered individually, as Dr. R. H. Flocks advises.

The following methods are used at Walter Reed Army Hospital:

• Transurethral electroresection and fulguration

Suprapubic segmental resection

• Internal radiation with Foley bag catheter—the Walter Reed technic described by Friedman and Lewis (Radiology 53:342-362, 1949)

ology 53:342-362, 1949)

◆ Total cystectomy with intestinal transplantation

Each patient is thoroughly evaluated from a general as well as a urologic standpoint. Biopsy, bimanual examination, and excretory urography are always done.

*MODERN MEDICINE, May 1, 1951, p. 74.

Transurethral resection and fulguration is the method of choice in primary, single, superficial, and papillary tumors. Segmental resection is best for single tumors, superficial or infiltrating, in a resectable area.

The Foley bag catheter with radium element, as shown in the illustration, is used for recurrent tumors, usually in conjunction with one of the above methods. Diameter of the bag is 4 cm.

This is a limited technic, and if used in selected cases, should give excellent results. It is felt that the use of 8,000 gamma roentgens to the tumor-bearing area of the bladder has some value in preventing recurrence. Until the carcinogen theory is either proved or ruled out, the theory is held that seed implantation is one cause of the high recurrence rate. It explains recurrence on the contralateral walls.

In using the Walter Reed technic, care must be taken to insure adequate collapse of the bladder about the balloon. In a series of 13 patients, 4 had recurrence; 3 were in the dome, where radiation is minimal, the other was in the lateral walls which did not collapse on the balloon, as was seen in the roentgenograms made during radiation. This patient subsequently had a total cystectomy.

Cystectomy is done for two reasons: [1] to obtain a cure, and [2] for palliation. For cure, the operation must be done early, before metastases have occurred in the regional lymph nodes. In a series reported by Jewett and Lewis from Johns Hopkins Hospital, all patients in which the tumor had extended

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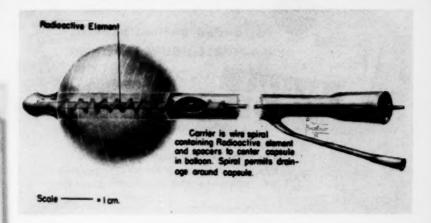


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MM-8-51



through the bladder wall with lymph node involvement were dead before five years (J. Urol. 60:107-112, 1948).

The operation must be radical. This means removal of bladder, perivesicular fascia and fat, prostate, seminal vesicles, and both layers of Denonvilliers' fascia in one block.

The operation must be done in one stage. A bilateral ureterointestinal transplant is made, using a modified Coffey 2 technic, after a five-day preliminary bowel preparation. Total cystectomy is then done from above. The peritoneum is not closed. If dissection from the bladder is at all difficult, the peritoneum is taken with the bladder. Dissection is done from lateral and cephalad direction toward the ureteral orifices. The vas and ureteral stumps are used for traction and lead to the proper plane of cleavage.

When the level of the seminal vesicles is reached, a reflexion of fascia is encountered. This must be cut in order to strip the rectum from the posterior layer of Denonvilliers' fascia. The apex of the prostate is then dissected free and the urethra is grasped and, by making traction, the whole block of tissue can be freed from the rectum, leaving the bladder attached by the lateral ligaments. The main blood supply comes in through these, and up to this point there is little blood loss.

The lateral ligaments are clamped as close to the pelvic wall as possible and the bladder is cut free. Drains are placed in the bladder fossa and the wound is closed. The peritoneum is closed if possible.

The postoperative course has been quite smooth. If a rectal tube is used for ten to twelve days, there will be no rise in blood chlorides. By starting orange juice orally on the fourth postoperative day, hypokalemia is averted.

It is to be stressed that total cystectomy can cure bladder carcinoma if used early and done properly. It is also used for palliation.

MAJ. EVAN L. LEWIS, M.C., U.S.A. Washington, D.C.

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Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-197

THE CLUE

ATTENDING M.D: I'd like you to see the patient in the next room, a man in his early fifties. His chief symptom is pain in the left side of the thorax. This started about four months ago when he bumped his chest on the corner of his desk. The pain has been progressive with some weekly variations but no long remissions.

ISITING M.D: (Puts his hand on the patient's chest and palpates the ribs) Now, the pain is about here? . . . or . . . (cry of pain from the patient as the Visiting M.D. touches a point on the sixth rib. The Visiting M.D. apologizes to the patient and turns to the Attending M.D.) It is extremely rare to find such exquisite superficial tenderness to even the slightest palpation. I've almost never seen this except with local destruction of the bone. I have already reached a presumptive diagnosis from past experience.

PART II

ATTENDING M.D. How can you? Have you seen the roentgenogram?

> VISITING M.D. No, but it will show bone destruction. The history is not that of a simple fracture, I'm sure, even from the little you've told me. Please proceed, however, with

ATTENDING M.D: You've already had the whole history. The rest is special laboratory examinations. What would you like to see?

VISITING M.D: Let me examine the patient first. (He does so.) Physical examination is negative. (Looks at the films.) Here are discreet osteolytic changes in the skeleton



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. . . they are multiple. This is the picture I expected. Here are the films of the thorax, spinal column, and skull.

ATTENDING M.D: They show rather discreet, punched-out lesions.

PART III

visiting M.D.: What was the blood sedimentation rate? Did urine contain Bence Jones protein?

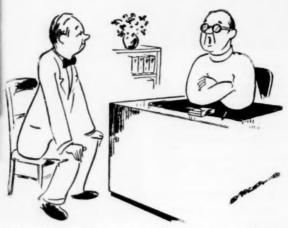
ATTENDING M.D: The sedimentation rate was 78 mm. in one hour; Bence Jones protein was found in the urine specimen.

visiting M.B: There is no need to go any farther. The most common symptom with this disease is pain. Most of the patients have multiple lesions. Serum protein is elevated in three-quarters of cases. This is associated with excessive rouleau formation, anemia, and evidence of renal dysfunction. Only about half the patients have Bence Jones proteinuria, and about two-fifths have myeloid immaturity. Other significant signs are osteopetrosis, hypercalcemia, pathologic fracture, paraplegia, root pain, tumor formation, and, rarely, myeloid cells in the peripheral blood.

ATTENDING M.D. And nosebleed.

PART IV

visiting m.d.: That was rather a short, simple case. No need to go over details. We should have a sternal aspiration for definitive diagnosis since we may want to report this case at a later date. I'm afraid there's not much that can be done. The course is usually steadily downhill with multiple myeloma. Few patients live even five years. Radioisotopes or irradiation may lessen the pain. Stilbamidine may be effective, or urethane, but toxic reactions often result from prolonged therapy.



"No, Mr. Brown, you don't have to be a railroad man to have locomotor ataxia."

Life's Weary Moments

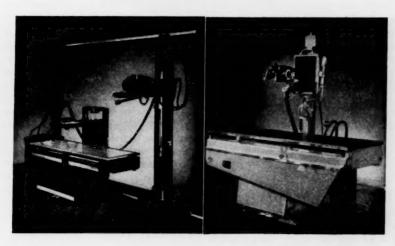
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F. P. McCauley, M.D. Philadelphia Mail your caption to The Cartoon Editor Caption Contest

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GENERAL & ELECTRIC

Short Reports

Physiology

Sedentary and Active Life

Physiologic functions are scarcely altered by recreational exercise continued for many years. Dr. Austin Henschel of the University of Minnesota, Minneapolis, compared 31 athletic and 34 relatively sedentary men aged 45 to 54 years in fifty-six types of tests. The active group were slightly heavier and larger around the chest and abdomen, with greater body density, and the diastolic blood pressure changed more during work. No other significant difference was noted between active and inactive subjects.

Federation Proc. 10:62, 1951.

Biochemistry

Two Types of Diabetes

Human diabetes mellitus may be of two kinds, caused, respectively, by lack of insulin or by other factors. Patients with the first type of diabetes are generally young, with hyperglycemia, rapidly developing ketosis, and severe weight loss, and must have insulin to live. The second kind are largely stout middle-aged women with hyperglycemia and glycosuria but no ketosis. If the weight of these patients is reduced, the diabetes is readily controlled by a lowcalorie diet without insulin, assert Drs. J. Bornstein and R. D. Lawrence of King's College Hospital, London. Brit. M. J. 4709:782, 1951.

Oncology

Blood Test for Cancer

About 95% of healthy adults have strong agglutinins to Proteus OX19 vaccine but only 28% of adults with active untreated cancer, even in the early stage. After radical surgery, irradiation, or Coley's vaccine therapy, however, 86% of treated cancer patients react to the antigen. Dr. I. A. Parfentjev and associates of Yale University, New Haven, Conn., conclude that neoplasm affects serum globulin. Similarly, previous reports have shown low antibody to Brucella abortus, Salmonella typhosa, S. paratyphi, S. schottmülleri, Treponema pallidum, Bacillus tuberculosis, and Proteus in subjects with Hodgkin's disease or leukemia.

Science 113:523-524, 1951.

Cardiology

Coronary Drug

Triethanolamine trinitrate, a cardio-vascular relaxant resembles nitroglycerin in action but has some advantages. The newer compound dilates the vessels for longer periods, and causes less myocardial and peripheral depression. Drs. K. I. Melville and F. C. Lu of McGill University, Montreal, compared effects of 10% solutions on rabbits, cats, and dogs and on isolated hearts. The more recent coronary drug, unlike the old, is not fatal in a 5-mg. dose. Federation Proc. 10:324, 1951.



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This announcement appeared originally in March Medical Journals. You are invited to send for a reprint of the study and ample clinical supplies to institute your own clinical tests. here's help for



(Top) Case No. 1: Before treatment

(Bottom) Same case following treatment

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A preliminary report of a recent clinical study ¹ on 12 patients complaining of soft, peeling, easily broken finger nails, confirms the value of gelatine in treatment of such conditions. The cases involved were of 1 to 15 years' duration, unyielding to various forms of local therapy.

Each patient was given 7 gms. (1 envelope) of Knox Gelatine daily, dissolved in water or fruit juice. Completely normal appearance of nails in ten cases, is reported in 13 weeks.

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1. Tyson, T.L., M.D.; J1. Inves. Derm.; 14. No. 5 May 1950.





Antibiotics

Mechanism of Action in Rheumatic Disease

Rheumatoid arthritis and allied ailments may be hypersensitive reactions to pleuropneumonia-like or L form organisms that can be eliminated by some antibiotics. These organisms are true bacteria but small enough to move into and out of cells, explain Dr. Thomas McP. Brown and associates of Washington, D.C. About 150 patients have been treated with encouraging results at George Washington University and Mt. Alto Veterans Administration hospitals. Terramycin, aureomycin, or chloramphenicol combined with albumin seems effective, though still in the research stage. The newer methods are based on several facts. L organisms cause joint disease in rodents, are recovered from arthritic human beings, and are killed by gold salts. Theoretically, the body reacts to infection by producing antibodies, and their conflict with invading germs results in swelling, fever, pain, stiffness, and crippling. Cortisone may temporarily relieve symptoms by preventing the antibody-antigen reaction. With severe rheumatic disease, serum albumin is low, but levels are raised by cortisone. Joint pain and swelling subside within fifteen minutes after injection of albumin, and improvement lasts six to eight hours. The mechanism may resemble that of cortisone. Antibiotics must be given carefully in extremely small intermittent doses. Large amounts induce a flare-up, possibly because killed bacteria flood out of the cells and

contact antibodies in great numbers. As organisms are gradually decreased, albumin is administered to block hypersensitivity reactions, and in a few months improvement is obvious.

Am. J. M. Sc. 221:618-625, 1951.

Physical Therapy

Rehabilitation of Multiple Sclerosis

Home training of patients with multiple sclerosis is described in a manual by Dr. Edward E. Gordon of the New York University-Bellevue Medical Center. The digest follows a survey of treatment and will be supplemented by four sets of instructions to affected persons with various grades of disability. Functional tests, exercises for muscular strength and coordination, and use of mechanical devices are described. The manual will be sent to physicians by the National Multiple Sclerosis Society, 270 Park Avenue, New York 17, N.Y.

Endocrinology

Cutaneous Cortisone

When applied to the skin, cortisone in ointment or sesame oil reduces the eosinophil count like an oral or subcutaneous dose. As little as 3 µg. of the acetate causes an abrupt fall in sensitive adrenalectomized mice. The strain employed by Dr. Robert S. Speirs of the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Me., is used specifically for assay of adrenal hormones. With the cutaneous test, up to 50 oilsoluble organic compounds can be screened for hormone-like activity in one day by 4 trained technicians.

Science 113:621-623, 1951.



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should prescribe oral penicillin



Just as effective as penicillin by needle

... it has been repeatedly demonstrated that the oral route is as effective as the parenteral route when adequate doses of penicillin are used."

Keefer, Chester S.: Am. J. Med. 7:216



★ Less sensitization

"... sensitization is least common following oral administration."

Keefer, Chester S.: Ann. Int. Med.



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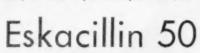
The patient is spared the upsetting unpleasantness of the needle.





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the unusually palatable liquid penicillins for oral use

Available in 2 fl. oz. bottles

'Eskacillin' T.M. Reg. U.S. Pat. Off.

Smith, Kline & French Laboratories, Philadelphia



Pharmacology

Digitalis Sensitivity

Loss of body potassium increases sensitivity of the heart to digitalis. Digitalis poisoning is therefore more likely with malnutrition, vomiting, diarrhea, or mercurial diuresis, especially after doses of ammonium chloride. The risk is exaggerated by intravenous injection of insulin and glucose or a course of desoxycorticosterone acetate. In 10 subjects with various degrees of congestive heart failure, both spontaneous and cautiously induced reactions were observed by Dr. Bernard Lown and associates of Montefiore Hospital. New York City. Intracellular potassium was apparently redistributed since no significant changes in serum were observed in 8 of 10 patients. The hyperactive cardiac response could be prevented or checked by oral doses of potassium citrate, for

example, by 67 mEq. on the day of mercurial therapy or 130 mEq. after intravenous insulin.

Proc. Soc. Exper. Biol. & Med. 76:797-801, 1951.

Hormones

Effect of Sex Steroids on Hepatic Cirrhosis

Estrogen may be worth trying as treatment in the early stages of portal cirrhosis in men. When producing cirrhosis in rats by high-fat, low-choline diets, Dr. William J. Emerson and associates of Harvard University, Boston, discovered that less severe liver and kidney damage resulted in young females than in young males. Sex steroids were then administered. Testosterone propionate aggravated lesions and caused more deaths, but estradiol dipropionate gave some protection against cirrhosis in adult males.

Endocrinology 48:548-559, 1951.

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent \$5. The Aug. 15 winner is E. V. Phillips, M.D. Oakland, Calif.

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Modern Medicine 84 South 10th St. Minneapolis 3, Minn.



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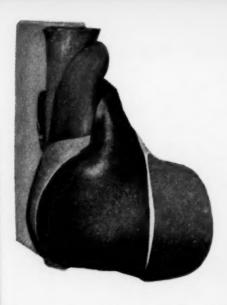
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^{*}Friedman, M., and Bine, R., Jr.: J. Clin. Investigation 24:1182, 1947.

in cardiac decompensation

with or without edema, the myocardial stimulation of Calpurate is quickly beneficial. Calpurate is a mild diuretic.

in coronary disease

because of its sustained coronary dilation, Calpurate is valuable as a preventive against the frequency and severity of angina pectoris attacks. In thrombosis, when blood supply is equal to increased vigor of contraction, routine use of Calpurate augments blood supply and allays cardiac failure.



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Calpurate (756 gr.) with Phenobarbital (14 gr.)

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Basic Science Briefs

Virology

Poliomyelitis Virus

Tissues entirely without nerve elements can be used for cultivation of the poliomyelitis group of viruses. Thus the assumption of an obligate neurotrophism for poliomyelitis virus is no longer tenable, believe Dr. Jerome T. Syverton and associates of the University of Minnesota, Minneapolis. Testicular cells from monkeys and human beings may be successfully used. The Lansing and Yale-SK strains of murine-adapted human organisms were propagated in three-passage series. Presence of virus in the tissue cultures was determined by paralysis and death of mice after injection, and the strain in each series was tested at least once for pathogenicity in monkeys. Virus did not multiply without viable testicular cells, and no viral contaminant was acquired.

Proc. Soc. Exper. Biol. & Med. 77:23-28, 1951.

Endocrinology

Sodium Balance

Neither the anterior nor the posterior pituitary is indispensable to sodium homeostasis. Totally hypophysectomized dogs respond to excessive salt intake or withdrawal like healthy animals, find Dr. D. H. Simmons and associates of the University of Minnesota, Minneapolis.

Federation Proc. 10:126, 1951.

Nutrition

Hepatoma from Deficient Diet

Two mice of a strain heretofore free of spontaneous hepatoma had liver tumors when deprived of sufficient protein and choline for 231 and 463 days after weaning. Dietary contents were 4% casein, 4% salts, 86.5% cornstarch, 2% cod-liver oil, 3% Wesson oil, 0.5% cystine, and vitamins. Dr. J. Walter Wilson of Brown University, Providence, observed a single protuberance in one liver and g small round nodules in the other. The organs became fatty, and contained considerable ceroid. Some fibrosis occurred without nodular hyperplasia.

Cancer Research 11:290, 1951.

Hematology

Emotions and Blood Clotting

Rage and abject terror in animals greatly speed coagulation of whole blood and render serum highly phytotoxic, as demonstrated by Macht's technics. Among healthy persons in the blood bank department of Sinai Hospital, Baltimore, clotting was also affected by emotion. Dr. David I. Macht found an average coagulation time of 8.3 minutes for a placid group, 3.4 minutes for apprehensive subjects, and 2.2 minutes for extremely nervous or hysterical individuals. No special difference in phytotoxicity was observed, however.

Federation Proc. 10:88, 1951.



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The anxiety and fear of becoming a burden to others are psychogenic factors which tend to perpetuate or accentuate the severity of arthritic symptoms.

These worries may be best combatted by the knowledge that thousands of disabled arthritics, who have taken DARTHRONOL as a part of a systemic rehabilitation program, are now enjoying gainful, active employment and useful happy lives.

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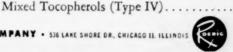
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Each Capsule Contains: Vitamin D..... 50,000 USP Units Vitamin A..... 5,000 USP Units Vitamin C..... 75 mg.

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And it is the most palatable liquid lipotropic you can prescribe — yet it is sugar-free — a factor of outstanding importance in management of diabetics.

LIPOLIQUID Lekeside Pleasant-tasting, cherryflavored, aqueous vehicle. Contains no sugar, no alcohol. Each tablespoonful (15 cc.) contains:

(15 cc.) contains:
Choline* (equivalent to 9.15 Gm. of
Choline Dihydrogen Citrate) 3.75 Gm.
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Oncology

Sarcoma Inhibition

Adrenalin usually prevents or arrests development of implanted sarcoma in rats whether injected into the proposed site, mixed with tissue fragments before transfer, or introduced into or around the growing tumor. The basic solution used on rats by Drs. Margaret Reed Lewis and Paul Myron Aptekman at the Wistar Institute of Anatomy and Biology, Philadelphia, was 1 mg. of epinephrine in 1 cc. of physiologic saline, with preservative. Dosage varied from 0.5 to 1 cc. diluted with 1 to 9 cc. of saline or distilled water. Local injections were given at three-day intervals up to twelve times. All survivors in which tumors were prevented or destroyed were inoculated three weeks later on the opposite side without additional adrenalin. Challenge grafts failed to grow in 40 of 61 cases, apparently because tumor vascularization was impaired. Science 113:557-558, 1951.



"No, no! Not yet, Junior."

Biochemistry

Microorganisms in Tumors

The stress associated with tumors encourages invasion of bacteria and fungi. Neoplasms, livers, and spleens of mice with a variety of transplanted growths and tissues from leukemic mice were cultured at the Sloan-Kettering Institute for Cancer Research, New York City. Although microorganisms were more apt to appear in the tumors than in the healthy tissues of the same animal, Drs. H. Christine Reilly and Hazel M. Overby found the same bacterial and fungal types throughout; no one variety had a predilection for a particular tumor. Tissues of healthy mice harbored no organisms.

Cancer Research 11:274, 1951.

Collagen Diseases

Rheumatoid Arthritis Metabolism

Peripheral glycine metabolism may be defective in rheumatoid arthritis, Because collagen contains 25% glycine, reaction of serum glycine to sodium benzoate was investigated by Dr. Joseph M. Looney and associates of the Veterans Administration and Boston University. Reduction of glycine was 3 times as great in rheumatoid patients as in subjects with osteoarthritis, cancer, or no bone disease. Hippuric acid excretion was approximately the same in all the groups. As a rule, alanine was equally decreased by sodium benzoate, but values rose in all rheumatoid individuals who also received ACTH or cortisone.

Federation Proc. 10:217-218, 1951.

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Ferrous Sulfate, Exsiccated 200	mg.
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Comprehensive antianemic therapy with Armatinic Activated Capsulettes assures a more rapid and complete response with a minimum of therapeutic failures. Effective potencies of all hemopoietic factors are obtained. Furthermore, vitamin B₁₂ is activated to optimum efficacy by the addition of desiccated duodenum, a fact established only recently.^{1, 2, 3}

An important advantage of Armatinic Activated is the virtual freedom from undesirable side-actions in the gastrointestinal tract. Indicated in all microcytic anemias and the macrocytic anemias of nutritional origin. Armatinic Activated Capsulettes, a new product of The Armour Laboratories, are economical. Supplied in bottles of 100 and 1000 at prescription pharmacies everywhere.

(1) Hall, B. E.: Brit. Med. J. 2: 585-589, 1950; (2) Bethel, F. H., et al.: Univ. Hosp. Bull., Ann Arbor, Mich. 15: 49-51, 1949; (3) Spies, T. D.; J.A.M.A. 145: 66-71, 1951



THE ARMOUR LABORATORIES

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PHYSIOLOGIC THERAPEUTICS THROUGH BIORESEARCH

Treatment of Cancer of the Lips

(Continued from page 60)

elderly patient, are often treated by irradiation. We have treated such lesions with 6,000 to 7,000 r of unfiltered x-rays, including a margin of 1 cm. on each side. The therapy is given in broken doses at five or six sittings spaced at two- or three-day intervals.

Our results have shown that this method is better than if the entire amount of irradiation is given at one sitting. Cancer cells divide two to four times daily, depending on their cellular differentiation. If the total treatment is divided into several sessions, cells not destroyed by the first or second applications will be affected subsequently.

Carcinoma involving the orbicularis oris muscle can be eradicated with heavy doses of irradiation therapy, but a defect remains, necessitating plastic repair. Consequently, it is best to remove the tumor surgically in the beginning.

A number of years ago, radium plaques and moulages holding radium tubes or implantations of radium needles and seeds were used in treatment of cancer of the upper and lower lip. The same effect can be obtained by x-ray therapy in shorter time of application and with greater ease and less likelihood of extensive sloughs and infection. We have therefore discontinued the use of radium for therapy of primary lip cancer.

Treatment of Cervical Metastases

The proper management of cervical metastases is all important. Prophylactic treatment of cervical metastases has been discussed in the literature for many years by those who are inclined to treat all malignancies of the lip by radiation, x-ray or radium, and contend that they prophylactically sterilize the node-bearing area by small doses of irradiation—1,500 to 2,000 r on each side of the neck.

It has been demonstrated repeatedly that if the primary lesion is adequately treated early, metastatic emboli are less likely to break away from the parent tumor and reach the nodes. Consequently, the best prophylaxis against metastases is adequate treatment of the primary lesion, accomplished

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It is of particular value when a child is convalescing, run down, or a picky eater with decided food preferences.

★ 0.8 mg. fa per 8 az. gloss. U. S. Dept. Agricultura Handback #8, 1950. p. 29.

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by surgical excision. Also, since 6,000 to 7,000 r is required to eradicate a small primary lip cancer, it appears impossible for "prophylactic" doses of 1,500 to 2,000 r through the skin of the neck to be of any real value in destroying metastatic cells in the nodes.

The treatment for lymph node metastases from lip cancer is surgical removal. The problem is to know what to do when the lymph nodes are not palpable. We have attempted to solve this difficulty by studying the relationship of histologic grading to lymph node involvement or recurrence.

Hayes E. Martin reports from the Memorial Hospital in New York that of all cases of lip cancer without palpable lymph nodes when first seen, 8% will sooner or later develop metastases in the lymph nodes. In other words, these 8% either had microscopic involvement on admission or metastases occurred during treatment of the primary tumor before eradication. We feel, therefore, that routine suprahyoid neck dissection is not indicated for cancer of lip when lymph nodes are not palpable.

Recurrences in lymph nodes increase in direct relation to the higher histologic grade; the more anaplastic the tumor, the greater the percentage of metastases. The percentage of three-year and five-year salvage is in direct proportion to the size of the primary lesion; thus, the smaller the lesion, the higher the percentage of three- and five-year salvage. From these two observations, we have formulated the following

principles for neck dissection in lip cancer:

When the lip tumor is under 2.5 to 3 cm. in diameter and of histologic grade 1, with no palpable nodes in the submental or submaxillary areas, routine suprahyoid neck dissection is not advised. Likewise, with lip cancers under 2 cm. in diameter and of histologic grade 2, 3, or 4, without palpable nodes in the submaxillary and submental areas, routine suprahyoid neck dissection is not advised. Such patients are observed every two months for the first year and every three months the subsequent year, and every four months thereafter for five years at least. When nodes enlarge in either of these two groups, suprahyoid dissection is done immediately.

Patients with lesions over 2 cm. in diameter, of short duration with rapid growth, and of histologic grade 2, 3, or 4, even though no nodes are palpable, should have routine



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new, safer, oral anticoagulant

Throughout the exhaustive studies on TROMEXAN, involving many hundreds of cases, this new anticoagulant has proved singularly free from the dangers of hemorrhagic complication. Other advantageous clinical features of TROMEXAN are:

- 1 more rapid therapeutic response
 (therapeutic prothrombin level in 18-24 hours);
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In medical and surgical practice . . . as a prophylactic as well as a therapeutic agent . . . TROMEXAN extends the scope of anticoagulant treatment by reducing its hazards.

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suprahyoid neck dissection. The mortality from such dissection as a prophylactic or curative measure is very low and cosmetic results are good.

Neoplasms of grade 1 and over 3 cm. in diameter, with no palpable lymph nodes in the drainage area, should be treated by routine suprahyoid neck dissection. These large cancers, even though of low histologic grade, are usually long-standing and more likely to have microscopic metastases in the lymph nodes.

Malignant growths involving the middle third of the lip, with palpable nodes on either side, require bilateral suprahyoid neck dissection. However, when the tumor is limited to the lateral third of the lip and enlarged firm nodes are palpable on the side of the growth, the suprahyoid neck dissection is limited to the involved side. When the nodes are found by frozen section to contain cancer, the neck dissection should be extended to include the jugular chain of nodes, that is, a radical neck dissection.

This is done by one of two procedures: The dissection is continued down to the crossing of the jugular vein by the omohyoid, and a simpler and less radical procedure (Willy-Meyer), or a complete radical neck dissection down to the clavicle is carried out (Halsted and Bloodgood). If positive nodes are found in the suprahyoid resected specimens from both sides of the neck (primary growth in center of lip), a radical neck dissection should be done on both sides. If such a bilateral radical neck dissection is contemplated, it is safer to space the operations six or eight weeks apart. We have followed this plan for several years and have been rewarded by a substantial number of patients living, without recurrence, for periods of five to ten years afterward. Careful evaluation of the lymph-node area at the time of the initial treatment and systematic follow-up are extremely important.

Patients with extensive metastases to one side of the neck, which may or may not be fixed to the mandible or to the surrounding structures, and measuring from 3 to 6 cm. in diameter, should be treated with irradiation to skin tolerance, followed by the implantation of radon seeds. After the mass is reduced, surgical or electrosurgical excision is carried out more advantageously in five or six weeks.

The mass is resected en bloc with a radical neck dissection.

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When the mandible and floor of the mouth and other contiguous parts are adherent to the mass, these structures are taken in the block dissection. It may be necessary to close the defect by a plastic procedure at the time of operation or later. A pedicle graft from the chest may be required, the distal end of the graft being lined with split-thickness graft to form a lining for the inside of the cheek when there is a loss of muccosa.

For extensive and inoperable metastases, an efficient method of implantation of involved cervical nodes with radon seeds was developed by Quick and his associates. The mass is exposed under infiltration anesthesia for adequate placement of the seeds. Areas of necrosis, if present, are curetted, allowing collapse of the mass, adding to the efficiency of the implantation, and preventing abscess. This is a marked improvement over the older method of implanting the nodes blindly through the skin; by the latter method blood vessels and nerves in the immediate vicinity may be injured.

Good healing of the wound takes place readily. It may be necessary to subsequently reimplant additional nodes. Cases that first appear hopeless are often carried along for varying periods of time by treating the involved nodes to skin toler-

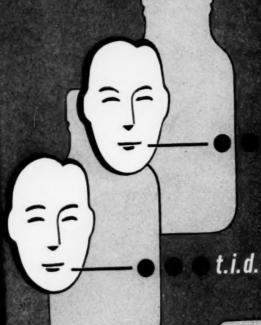
ance with x-ray and, later, implantation.

Each year, a number of patients consult the clinics who have been treated elsewhere with irradiation and have lingering, indurated, firm ulcers. These patients frequently think that they have x-ray ulcers and have been advised all too often by other physicians that they have had too much radiation. An adequate biopsy is necessary to determine the presence or absence of growth before any therapy is considered, for not infrequently malignancy persists, even though clinically the lesions simulate a breakdown of the tissues from the effects of radiation. Such radiation effects are due to obliterating endarteritis and fibrosclerosis. These lesions are resistant to further radiation and should be excised widely, using the type of plastic procedure necessary to close the resulting defect.

A number of patients have been seen with an apparent local recurrence near the site of the original lesion, not actually in the scar. Statistically speaking, the second cancer

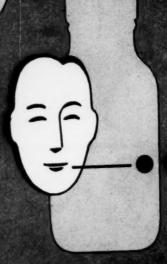
(Continued on page 144)

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DECATUR, ILL.

should be considered as separate and distinct from the original and not as a recurrence. Such secondary growths are frequently noted with extensive keratoses and leukoplakia.

Other Metastases from Lip Carcinoma

Ewing, in 1940, stated that "metastatic invasion of lymph nodes in lip cancer occurs rather late and shows a close relationship to the size of the lesion and the grade of malignancy. Invasion of submental and submaxillary nodes occurs prior to invasion of deep cervical nodes." Further, Ewing states that metastatic nodes develop early in 2% of lesions of 1 to 1.5 cm. in size. He reports that 4% of 276 lesions had metastases from one to seven years after the onset of the illness: 13% metastasized late in the course of the disease.

Broder, 1920, found that 11% metastasized in grade 1 and 2, and 66% in grade 3 and 4. He concluded that routine neck dissection was not necessary in grade 1 carcinoma of the lip. Whitcomb, 1944, states that metastases to regional lymph

nodes occur in 25% of any series.

The question of distant metastases from any carcinoma is always interesting. William S. MacComb, reporting from Memorial Hospital in July 1942, stated that out of 13 autopsies, only 2 had distant metastases, and 6 out of 13 autopsies showed regional metastases. Death in these cases occurred from lip cancer or other causes, but the patients had active lip cancer at the time of death. Schreiner states that metastases to viscera almost never occur except in hopelessly advanced cases. Thoracic and abdominal metastases were present in 3 of 17 autopsies following death from lip cancer. This gives a visceral metastasis of about 17.6%.

Follow-up

An efficient system for follow-up should be planned for each form of cancer and a definite interval for examination established, for some types recur more frequently than others and require closer observation. Reexaminations should be made as follows: during the first year, every two months; the second year, every four months; the third, fourth, and fifth years, every four to six months. The time interval should be reduced for cancer of grade 3 or 4.

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Forensic Medicine

ARTHUR L. H. STREET, LL.B.

Prepared especially for Modern Medicine

PROBLEM: There was ample evidence to sustain a conviction of murder but was it properly set aside because the trial judge permitted the prosecution to show that accused had confessed guilt to a physician who was called in by the district attorney to examine accused? The doctor had professed to represent the accused and had concealed knowledge that police officers were secretly listening to, and recording, the conversation.

COURT'S ANSWER: Yes.

In ordering a new trial, the New York Court of Appeals refused to interfere with the jury's implied finding that the doctor had not hypnotized the accused, as the latter claimed. But the highest court unanimously ordered a new trial on the principal ground that accused had been unjustly induced to make a confession to one whom he regarded as his own doctor. The court said that, "while deception alone, or a mere violation of confidence by a doctor in the sense that he has voluntarily disclosed to the police a confidential communication received in the usual practice of his profession may not render a confession invalid, . . . this court is unwilling to assent to the doctrine that representatives of the State may thus employ a relationship they established between the doctor and this defendant, which is of a character that our public policy holds privileged, . . . in order to obtain a confession . . . without warning and under the circumstances here disclosed. . . . If a physician may be thus used, then why not a lawyer or a clergyman?" (98 N.E. 2d 559).

PROBLEM: A physician, acting for the attorneys of a plaintiff in a personal injury suit, obtained information concerning the client's condition. Was he privileged not to disclose the information at the instance of the defendant?

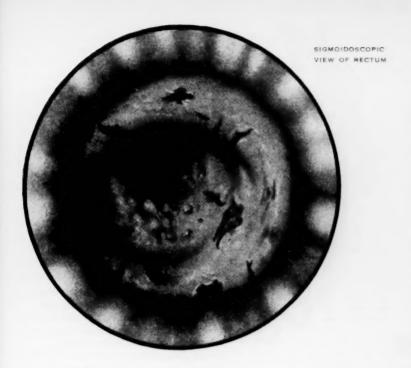
COURT'S ANSWER: Yes.

The California Supreme Court decided that the information was not protected by the statute rendering information confidential that is acquired in treating or attending a patient, but was protected by another statute which guards confidential communications between lawyer and client against disclosure. The doctor is considered in this instance as the agent of the lawyer (231 Pac. 2d 26).

PROBLEM: Was a rule barring from practice in a county hospital doctors who failed to assist other doctors on request void?

COURT'S ANSWER: Yes.

The decision by the Arizona Supreme Court in this case involved



in dysentery due to Shigella paradysenteriae:

"Six children between the ages of four and six years . . . given terramycin. The diarrhea which was pronounced in each case stopped within 48 hours in the case of four patients and within 72 hours in the other two . . . In all cases, the organism disappeared from the stool after treatment was started and did not reappear."1

Dowling, H. F., et al.: Ann. New York Acad. Sc. 53:433 (Sept. 15) 1950.

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE available as Capsules. Elixir, Oral Drops, Intravenous, Ophthalmic Ointment, Ophthalmic Solution.





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In biliary tract disorders bile itself can be "therapeutic" - when the bile flow evoked is abundant and fluid, serving to flush the biliary tree of mucus, pus, particulate matter and thickened bile.

Bile of this "therapeutic" character - copious in volume and low in viscosity - is produced by the specific hydrocholeretic action of Decholin and Decholin Sodium. These agents are especially valuable in nonsurgical drainage therapy of chronic cholecystitis, noncalculous cholangitis and biliary dyskinesia, and before and after surgery of the tract.

Adequate dosage of Decholin for most patients requires one or two tablets three times daily for 4 to 6 weeks. Prescription of 100 tablets is recommended for maximum efficiency and economy. More prompt and intensive hydrocholeresis may be achieved by initiating therapy with Decholin Sodium 5 cc. to 10 cc., intravenously, once daily.

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Decholin Sodium (brand of sodium dehydrocholate) 20% aqueous solution, ampuls of 3 cc., 5 cc., and 10 cc., in boxes of 3, 20 and 100.

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the only hospital in the county, which also served a wide area outside the county. Two statutes applied, one which made care of the indigent a primary object but authorized the board to admit pay patients, and one which authorized pay patients to employ physicians of their own choosing, "who shall be permitted the necessary use of the hospital facilities."

No question was raised against the right of a public hospital to make and enforce reasonable regulations covering use of the hospital by physicians.

The court assumed that no person worthy of a medical title and respecting the Hippocratic Oath would unreasonably refuse to assist another doctor, but decided that the rule in question was void, not only because attempting to compel one doctor to assist another whether or not compensation was assured and to require assistance in an operation which the doctor might disapprove, but also depriving the doctor of freedom to choose whom he will serve.

The court carefully noted that the mere fact that one is licensed to practice does not confer right to practice in a public hospital, but that rules regulating practice in the hospital must be reasonable.

The decision was reached by a vote of 3 to 2. The 2 dissenting judges were of the opinion that the hospital board acted within its legal power in adopting the rule complained of. The majority opinion seems to be much better supported by judicial precedents than the dissenting opinion of the judges in this case (230 Pac. 2d 526).

PROBLEM: Allegedly, doctors operating a clinic agreed for a fixed fee to provide pre- and postnatal care, but neglected to administer pain-relieving drugs in time. [1] Could neglect in that respect be legally established without medical expert testimony? [2] Having permitted the doctors to deliver the child, after such alleged neglect, and to provide postnatal care, did the patient's husband waive right to cancel the contract on account of such neglect?

COURT'S ANSWER: [1] No. [2] Yes.

This case was decided by the Georgia Court of Appeals, Division 2 (64 S.E. 2d 323).

PROBLEM: In a suit against surgeons for negligence in leaving a sponge or gauze in a surgery wound: [1] Was the patient bound to prove that the doctors failed to use standard skill and care, as well as that the sponge or gauze was left in the wound? [2] Did the trial judge err in not allowing the patient to prove that one of the doctors had been warned in the operating room that the count of sponges did not tally and that he told another doctor he had been delayed because the sponge count did not come out correctly?

COURT'S ANSWERS: Yes.

A jury returned a verdict in favor of the doctors, and that implied a finding that the doctors were not negligent. But, on plaintiff's appeal, the U.S. Court of Appeals, Tenth Circuit, reversed the decision and, in effect, ordered a new trial on the ground that the jury should have been permitted to consider testimony that the surgeons had been warned in the operating room that one or more sponges remained in the wound (187 Fed. 2d 892).

Washington Letter

Aid for Medical Schools and Public Health Units May Be OK'd

The new interest in health legislation aroused by the President's plan for hospitalization of the aged continues. The result may well be passage of one or two important bills, although, ironically, the hospitalization plan is believed to have less chance than almost any other medical bill now before Congress.

Foremost in importance are the House and Senate bills providing federal aid to medical education, now in a good strategic position as the result of a new policy by American Medical Association. Until last spring, AMA had consistently opposed federal aid, arguing that the dangers of possible U.S. control outweighed benefits to the schools. However, as school after school was push-

ed against the financial wall, officials of AMA reexamined their original stand.

The first open shift came at the Atlantic City convention, when the AMA's new President, Dr. John W. Cline of San Francisco, said flatly that the association would favor one-time grants for constructing, equipping, and enlarging schools. It was not a major point in his talk, but it was enough for medical school deans and others who have worked for years on this legislation.

Immediate reaction was not encouraging. There was some indication that sponsors of the long-delayed bills for help on construction and maintenance were not prepared to settle for "bricks and mortar."

However, after a few weeks, key congressmen began to look into the situation. Chances are 50-50 for passage of some legislation of this type before the end of the year.

Also out of cold storage is the bill for federal aid for establishing and maintaining local public health units, which, incidentally, the AMA generally has favored. A bill on this subject passed the Senate months ago, but for a



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M-19

akeside aboratories, INC., MILWAUKEE 1, WISCONSIN time the House version had been bogged down in the Interstate and Foreign Commerce Committee. If the various disputants can get together on a definition of what constitutes local public health service, this bill has a better than even chance of becoming a law this year.

Sen. Lister Hill of Alabama, an administration leader, is making another attempt with a bill for federal assistance in providing special services for educating physically handicapped school children. It would start off with \$4,000,000 a year, and by 1955 build up to double that amount. Money would go toward special buildings and equipment, with states required to match some proportion of the federal contribution.

There is not much apparent opposition-except that motivated by economy-so this, too, may find its way to the top this year.

Hospitalization Plan

Although FSA Administrator Oscar Ewing scouted about Capitol Hill for advice and aid before officially announcing the hospitalization-of-theaged plan, it received very little initial support from Congress.

Almost as soon as he was informed of it, Chairman Robert L. Doughton said he didn't see how his House Ways and Means Committee could get to the bill this session.

Official announcement of the plan by Mr. Ewing brought out more details on how it would be expected

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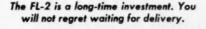
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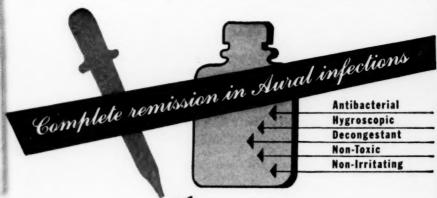
to work. Widows and dependents of deceased persons who had been covered by social security would get hospitalization, as well as all Social Security eligibles over 65. The government would not be allowed to make payments to domiciliary or rest homes, nor would persons with chronic conditions be admitted to hospitals under the plan.

The cost estimate was reached by ascertaining that the average person over 65 requires about two and one fourth days of hospitalization a year, and the younger recipients, including children, between half a day and a day. Medical service would not be included, except that ordinarily furnished patients by the hospital, and patients could have private

rooms or other "luxuries" only by paying the difference.

Civil Defense

The current pulling and pushing over civil defense appropriations-including about \$200,000,000 earmarked for medical stockpiling-stems from congressional reluctance to accept the principle of federal leadership. Through long hearings, Congress learned that too many states and cities just were not willing to spend money, although none questioned the need. The first result of this attitude was a deficiency appropriation for Federal Civil Defense Agency that barely kept it alive, and allowed only a small sum for medical expenses. Even this had to be match-



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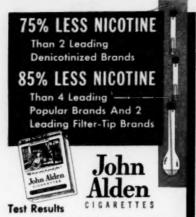
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*A summary of test results available on request.

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'ed by states, which completely eliminated the principle of regional depots, accessible to any stricken city or community.

When CDA came back to Congress with its fiscal 1952 request, there hadn't been much change in attitudes. Congress continued to ask what the states were going to do and when. Spokesmen for the states renewed their demand that the federal government start things moving.

CDA asked for about half a billion dollars. It expected to spend just a little less than half of this for the purchase of medical supplies and equipment to be stored at a number of depots located within fast trucking distance of bomb target areas. Most of the rest would be set up as a fund for matching grants to states and cities for construction of underground centers, centers which a number of states already had decided not to build. There was a possibility that hospitals located in or near target areas might share in part of these grants, if they could show that the federal money would be used toward construction of bombproof passageways or cellars.

Washington Notes

Following up the 1950 Conference on the Aging, Federal Security Agency has started publication of a new pamphlet titled Aging. It will be issued irregularly as developments warrant. Acting editor is Clark Tibbitts, chairman of an interagency committee studying problems of the aging and known to hundreds as chairman of the conference.

President Truman chose the dedication ceremony at the new U.S. Clinical Center as the time to an-

(Continued on page 160)



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For optimal results in the treatment of hypertension, the correction of such contributory factors as obesity, improper diet and psychic lability is considered advisable.

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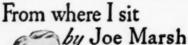
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"Cappy" Fisher—who just retired after thirty-five years as a railroad conductor—was telling about a salesman who was often one of his passengers.

"That man was so busy," says Cappy, "he used to bring a dictaphone on the train to catch up on his letters. On one trip he'd been rushing around so much he clean forgot to bring his ticket. Left it on his desk."

When Cappy started to tell him not to worry about the ticket, the salesman busts out with "Who's worried about the ticket? It's just that now I don't know what city I was going to get off at!"

From where I sit, there are people who get so wrapped up in themselves and their ideas they forget "where they're going." Some get so narrow they would tell a man where and how he should practice his profession . . . others would deny their neighbors the right to a glass of beer. Just as trains run on steam and oil, democracies run on freedom and tolerance!

Joe Marsh

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nounce he wasn't insisting on national compulsory health insurance—just a workable plan. However, he challenged AMA and others who have opposed his ideas to come up with a plan "even almost as good" which he could accept.

Public Health officials decided that the following were symbolic of modern medicine and placed them in the cornerstone of the Center: an electroencephalogram, a venous catheter, sulfonamide drugs, a sample of ACTH, normal dried plasma, a sample of sodium pentothal, insecticides such as DDT, a number of vaccines, and a sample of sodium fluoride.

Names. Dr. Byron H. Webb, noted for his research on milk, is retiring from the Agriculture Department. Dr. John Field is the new head of the Division of Biological



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Both physically and psychologically, TAMPAX tampons are amazingly comfortable intravaginal menstrual guards. They cannot induce odor, perineal irritation or infection via rectum. And, with the individualization and convenience of protection provided by the three absorbencies (Regular, Super, Junior), their use is said to tend to make women "forget they are menstruating."* These dainty cotton tampons are also thoroughly safe and adequate.

*West. J. Surg., Obstet. & Gynec., 51:50, 1943; J.A.M.A., 128:490, 1945.

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Sciences, National Science Foundation, the first divisional chief to be named. Dr. Charles L. Brown of Philadelphia and Dr. Charles E. Kossman of New York City go on VA's board of chief medical consultants. Dr. Seymour S. Kety of the University of Pennsylvania is the new scientific director for the joint research program of Mental Health and Neurological Diseases and Blindness Institutes.

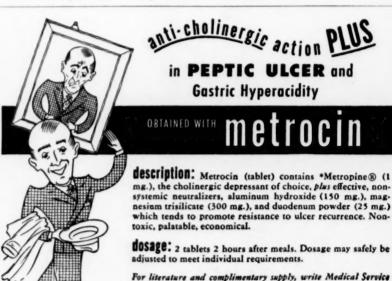
National Defense. Sen. Herbert Lehman's subcommittee on health, without waiting for Civil Defense Administration, is making its own survey of medical care facilities. It is particularly concerned with areas which might suffer emergencies, through either enemy attack or mushroom growth. Lehman has asked the help of AMA in gathering specific information.

 American Red Cross has doubled first-aid training over a year ago, but fears that the program still is

not adequate.

VA held up plans for five hospitals until it could work out specifications for bomb-proof features capable of housing all patients; this will be standard requirement from now on in all VA hospitals built in target areas.

 Professional schools now send progress data on deferred draft-age students directly to the local selective service board, speeding the process of verifying the status of students.



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Nutrition

THE AMINO ACID COMPOSITION OF PRO-TEINS AND FOODS: ANALYTICAL METHODS AND RESULTS by Richard J. Block and Diana Bolling. 2d ed. 576 pp., ill. Charles C Thomas, Springfield, Ill. \$10.50

STOFFWECHSEL UND ERNÄHRUNG by Konrad Lang and Otto F. Ranke. 289 pp., ill. Springer, Berlin. 19.80 DM. SYMPOSIA ON NUTRITION OF THE ROBERT

GOULD RESEARCH FOUNDATION, INC., VOL. H. PLASMA PROTEINS edited by John B. Youmans. 352 pp., ill. Charles C. Thomas, Springfield, Ill. 86.50

First Aid

FIRST AID: SURGICAL AND MEDICAL by Warren H. Cole and Charles B. Puestow. 4th ed. 448 pp., ill. Appleton-Century-Crofts, New York City. \$4

ILLUSTRATIONS OF BANDAGING AND FIRST AID compiled by Lois Oakes. 4th ed. 308 pp., ill. E. & S. Livingstone, Edinburgh. 8s. 6d.

Directories

THE BRITISH MEDICAL DIRECTORY, 1951. 107th ANNUAL ISSUE. 2,768 pp. J. & A. Churchill, London. 63s.

DIRECTORY OF MEDICAL SPECIALISTS HOLD-ING CERTIFICATION BY AMERICAN BOARDS, vol. v. 1,694 pp. A. N. Marquis Co., Chicago, \$14.40

DIRECTORY OF INTERNATIONAL SCIENTIFIC ORGANIZATIONS-UNESCO, PUBLICATION NO. 619. 224 pp. Columbia University Press, New York City. St



dependence on diet alone is DANGEROUS PRE-NATAL GAMBLING

The OB patient who depends on diet alone without your supervision for providing the greatly increased need for essential vitamins and minerals is virtually gambling with her own health as well as with the well-being of the infant.

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- 1. Burke, B. S.: Obst. & Gynec.
- Survey, Oct. 1948, pp. 716-725.

 2. Warkany, J.: Obst. & Gynec.
 Survey, Oct. 1948, p. 693.

 3. Allen, E. D.: Chic. Med. Soc.
- Bull., (April 8th) 1950, p. 834.





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PATIENTS

. . I Have Met

The editors will pay \$1 for each story published. No contributions will be returned. Send your experiences to the Patients I Have Met Editor, MODERN MEDICINE, 84 South Tenth St. Minneapolis 3, Minn.

When Shall We Start?

My father, who will be 80 years old next month, still maintains a small practice. He was delighted the other day when he received one of the war service forms which the Army is sending to all medical men. To the question, "If the Army could correct any disability which you might have, would you be willing to serve?" he replied with enthusiasm, "Indeed, I would."-R.R.

POOR RETCH

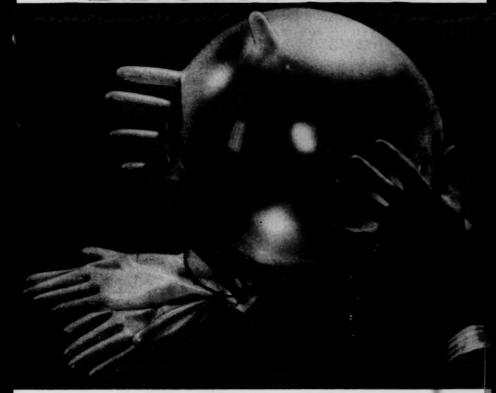
Oh, follow the swallow, The poets all cry-A gastric migration I don't care to try. But when acidosis And biliousness burn. I greet with abandon The swallow's return.

-M.H.P.



"The doctor told him to avoid stairs."

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Horse of a Different Color

The veterinarian in our town has a telephone number similar to mine. The other day my secretary answered the phone and I happened to listen in on the following conversation:

Patient: Could Doc come out right away? He doesn't seem to get any bet-

ter

Secretary: Where abouts is it?

Patient: Out on Route 3, a mile north of Jake's gas station.

Secretary: Dr. K won't be able to get out there until after office hours. If you can bring the patient to the office he will attend to him right away, I am sure.

Patient: Well-l-l, I don't have no way

of getting him there.

Secretary: I know there is a bus coming by your place which stops almost in front of our office, and the elevator brings you right to our door.

Patient: Yeah? But how am I going to get that horse into the elevator?—o.k.

History Lesson

The sixth grade had been discussing the abdication of Edward VIII and my daughter was explaining it to her younger sister: "You see," said the worldly one, "He wanted to marry Mrs. Simpson who had been married twice before and had no children. And, of course, the King of England couldn't marry a woman with infantile paralysis."—R.R.

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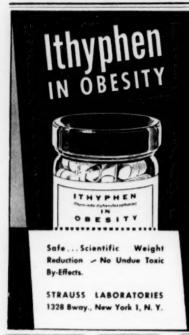
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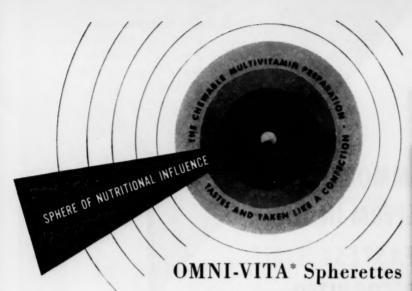


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"The high calory oral feeding of infants with diarrhea is much superior to the starvation or minimal feeding so commonly practised, in that the natural defenses, viz. the antibodies, are given an opportunity for full development and full functioning. The extra calories supplied compensate for the food lost owing to the accelerated intestinal rate which occurs in diarrhea."

The high calory diet includes Appella.

"The apple powder is an important component of the regimen, since it slows the intestinal rate and converts the watery irritating stools into comparatively normal dejections." ¹

APPELLA® Apple Powder

- High and Uniform Potency
- Small Bulk
- Easy Dosage
- Prompt Control of Diarrhea
- No Constipution

Supplied in 7 oz. and 18 oz. jars.



APPELLA, trademark reg. U.S. & Canada

1. O'Koefe, E. S.: Rhode Island Med. Jour., 33:127, Mar., 1950.







Delayed Action Tablet begins to act as the effect of the uncoated tablet tapers off. This convenient "two-tablet regimen" affords the patient an allergy-free day and a restful allergy-free night.

Ciba Pharmaceutical Products, Inc., Summit, New Jersey

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